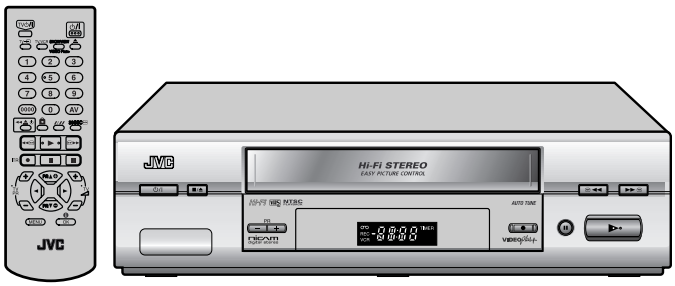
JVC

SERVICE MANUAL

VIDEO CASSETTE RECORDER

HR-V200Ez, HR-V205EK, HR-V500Ez, HR-V505EK, HR-V505Ez



VHS PAL

Hi-Fi

VIDEO Plus+

SPECIFICATIONS *(The specifications shown pertain specifically to the model HR-V505EK.)*

GENERAL

Power: 200 V – 240 V, 50 Hz/60 Hz
Power consumption : Power on : Approx. 12 W : Standby mode:3.0 W
Video Head system : DA4 (Double Azimuth) head helical scan system
Tape speed
(SP) : 23.39 mm/sec
(LP) : 11.69 mm/sec
Tape format : Tape width 1/2" (12.7 mm high density VHS tape)
Maximum recording time
(SP) : 240 min. with E-240 video cassette
(LP) : 480 min. with E-240 video cassette
Rewind time : Approx. 180 sec. with E-180 cassette
Dimensions (W x H x D) : 360 mm x 94.5 mm x 270 mm
Weight : 4.0 kg
Operating temperature : 5 °C to 35 °C
Operating humidity : Less than 80 %
Timer: 24 hours display type

VIDEO

Signal system: PAL-type colour signal and CCIR monochrome signal, 625 lines 50 fields
Recording Format : PAL I
RF reception : PAL I
RF OUT : PAL I
RF modulator: UHF channels 22 – 68 (Adjustable)
Input level : VIDEO IN (SCART type) 1.0 Vp-p, 75 ohm, unbalanced
Output level : VIDEO OUT (SCART type) 1.0 Vp-p, 75 ohm, unbalanced
Signal-to-noise ratio : More than 43 dBm

AUDIO

Input level : AUDIO IN (SCART type) –6.0 dBm, more than 10 kΩ
Output level : AUDIO OUT (SCART, RCA type) –6.0 dBm, less than 1 kΩ
Audio track : Mono track and Hi-Fi track
Audio frequency response
Normal audio : 100 Hz to 10,000 Hz (–6/+3 dBm)
Hi-Fi audio : 20 Hz to 20,000 Hz (–3/+3 dBm)
Audio signal to noise ratio
Hi-Fi audio : More than 70 dB (JIS A filter)
Audio dynamic range
Hi-Fi audio : More than 85 dB (JIS A filter)

ACCESSORIES

Provided accessories : RF cable, Infrared remote control unit, "CR 2032" battery x 1

Specifications shown are for SP mode unless otherwise specified.
E.& O.E. Design and specifications subject to change without notice.

HR-V200EZ, HR-V205EK, HR-V500EZ, HR-V505EK, HR-V505EZ, V16A0,A1,D0,D1-

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The following table indicates main different points between models HR-V200EZ, HR-V205EK, HR-V500EZ, HR-V505EK and HR-V505EZ.

ITEM \ MODEL	HR-V200EZ	HR-V205EK	HR-V500EZ	HR-V505EK	HR-V505EZ
BROADCASTING STANDARD	PAL B/G,D/K	PAL I	PAL B/G,D/K	PAL I	PAL B/G,D/K
AUDIO	MONO	←	HiFi	←	←
STEREO DECODER	NOT USED	NOT USED	NICAM, 2 Carrier	NICAM	NICAM,2 Carrier
VIDEO HEAD	2	←	4	←	←
TAPE SPEED	SP	←	SP/LP	←	←
SHOWVIEW/VIDEOplus+	NOT USED	VIDEOplus+	NOT USED	VIDEOplus+	SHOWVIEW
FRAME ADVANCE	NOT USED	←	USED	←	←
SLOW(FORWARD)	NOT USED	←	USED	←	←
DIGITAL SHUTTLE	NOT USED	←	←	USED	←
HiFi AUDIO OUT(RCA)	NOT USED	←	USED	←	←
AV2 CONNECTOR	NOT USED	←	←	USED	NOT USED
POWER PLUG	CEE	BS	CEE	BS	CEE

Notes: Mark ← is same as left.

SECTION1 SUMMARY
KEY TO ABBREVIATIONS

A	AC	:Alternating Current
	ACC	:Automatic Color Control
	ACSS	:Automatic Channel Setting System
	ADJ	:Adjust
	A/E	:Audio Erase
	AFC	:Automatic Frequency Control
	AFT	:Automatic Fine Tuning
	AGC	:Automatic Gain Control
	A.H.SW	:Audio Head Switch
	ALC	:Automatic Level Control
	AM	:Amplitude Modulation
	AMP	:Amplifier
	ANT	:Antenna
	APC	:Automatic Phase Control
	ASS'Y	:Assembly
	AUX	:Auxiliary
B	B	:Base
	BGP	:Burst Gate Pulse
	BPF	:Bandpass Filter
	BS	:Brodcasting Satellite
	BW or B/W	:Black and White
C	C	:Capacitor, Chroma, Collector
	CAN	:Cancel
	CAP	:Capstan
	CAP.BRK	:Capstan Brake
	CAP.RVS	:Capstan Reverse
	CATV	:Cable Television
	CBA	:Circuit Board Assembly
	CCD	:Charge Coupled Device
	C.CTL	:Chro Control, Capstan Control
	CFG	:Capstan Frequency Generator
	CHROMA	:Chrominance
	CNR	:Chroma Noise Redution
	COMB	:Combination Comb Filter
	COMP	:Comparator Composite Compensation
	CONV	:Converter
	C.ROT SW	:Color Rotary Switch
	CS	:Chip Selcet
	C.SYNC	:Composite Synchronization
	CTL DIV	:Control Divide
	CUR	:Current
	CYL	:Cylinder
D	D	:Drum, Digital, Diode, Drain
	D.ADJ	:Drum Adjust
	DC	:Direct Current
	D.CTL	:Drum Control
	DEMOD	:Demodulator
	DET	:Detector
	DEV	:Deviation
	DHP	:Double High Pass
	DIGITRON	:Digital Display Tube
	DL	:Delay line
	DOC	:Drop Out Compensator
	DUB	:Dubbing
	D.V SYNC	:Dummy Vertical Synchronization
E	E	:Emitter
	EE	:Electric to Eletric
	EMPH	:Emphasis
	ENA	:Enable
	ENV	:Envelope
	EP	:Extended Play
	EQ	:Equalizer
	EXP	:Expander
F	F	:Fuse
	FB	:Feed Back
	FBC	:Feed Back Clamp
	FE	:Full Erase
	FG	:Frequency Generator
	FL	:Filter
	FM	:Frequency Modulation
	F/R	:Front/Rear
	FS	:Frequency Synthesizer
	FSC	:Subcarrier Frequency
	F/V	:Frequency Voltage
G	GEN	:Generator
H	H	:High, Horizontal
I	IC	:Integrated Circuit
	IF	:Intermediate Frequency
	INS	:Insert
L	L	:Low, Left, Coil
	LD	:LED
	LD VTG CTL	:Loading Voltage Control
	LECHA	:Letter Character
	L.M	:Level Meter
	LP	:Long Play
	LPF	:Low Pass Filter
M	MAX	:Maximum
	MD	:Modulator
	MECHA.CTL	:Mechanism Control
	MIC	:Microphone
	MIN	:Minimum
	MIX	:Mixer, Mixing
	M.M.	:Monostable, Multivibrator
	MMV	:Mono Multi Vibrator
	MOD	:Modulation, Modulator
	MODEM	:Modulator-Demodulator
	MPX	:Multiplex
N	NR	:Noise Reduction
O	OSC	:Oscillator
	OSD	:On Screen Display
P	PB	:Playback
	PCB	:Printed Circuit Board
	P.CTL	:Power Control
	PRE-AMP	:Preamplifier
	P.F	:Power Failure
	PG	:Pulse Generator
	PLL	:Phase Locked Loop
	PREM.DET	:Premire Detect
	P.P	:Peak-to-Peak
	PS	:Phase Shift
	PWM	:Pulse Width Modulation
	PWR CTL	:Power Control
Q	Q	:Transistor
	QH	:Quasi Horizontal
	QSR	:Quick Setting Record
	QTR	:Quick Timer Record
	QV	:Quasi Vertical
R	R	:Resistor, Right
	RE(or RC)	:Remocon, Receiver
	REC	:Recording
	REC S 'H'	:Record Start 'Hight'
	REF	:Reference
	REG	:Regulated, Regulator
	REMOCON	:Remote Control(unit)
	RF	:Radio Frequency
	R/P	:Record/Playback
	RTC	:Reel Time Counter
S	S	:Serial
	S.ACCEL	:Slow Accel
	SAOP	:Second Audio Program
	SC	:Scart, Simulcast
	S.DET	:Secam Detect
	SH	:Shift
	SHARP	:Sharpness
	SIF	:Sound Intermediate Frequency
	SLD	:Side Locking
	S/N	:Signal to Noise Ratio
	SP	:Standard Play
	ST	:Stereo
	SUB	:Subtract, Subcarrier
	SW or S/W	:Switch
	SYNC	:Synchronization
	SYSCON	:System Control
T	T	:Coil
	TP	:Test Point
	TR	:Transistor
	TRK	:Tracking
	TRANS	:Transformer
	TU	:Tuner, Take-up
U	UHF	:Ultra High Frequency
	UNREG	:Unregulated
V	V	:Volt, Vertical
	VA	:Always Voltage
	VCO	:Voltage Controlled Oscillator
	VGC	:Voltage Gain Control
	VHF	:Very High Frequency
	V.H.SW	:Video Head Switch
	VISS	:VHS Index Search
	VPS	:Video Program System
	VR	:Variable Resistor or Volume
	V-SYNC	:Vertical Synchronization
	VTG	:Voltage
	VV	:Voltage to Voltage
	VXO	:Voltage X-tal Oscillator
W	W	:Watt
	WHT	:White
	W/O	:With out
X	X-TAL	:Crystal
Y	Y/C	:Luminance/Chrominance
	YNR	:Luminance Noise Reduction
Z	ZD	:Zener Diode

Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

●Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded ( ) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape 3) Spacers 5) Barrier
   2) PVC tubing 4) Insulation sheets for transistors

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

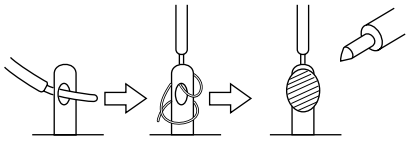


Fig.1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

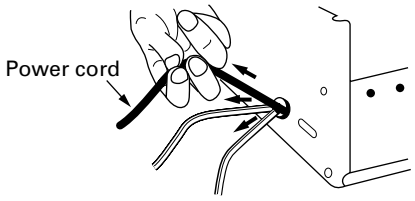


Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
       (1) Remove the old connector by cutting the wires at a point close to the connector.
       Important : Do not reuse a connector (discard it).

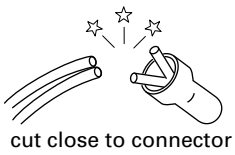


Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

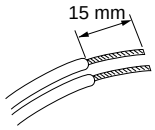


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

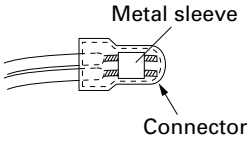


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

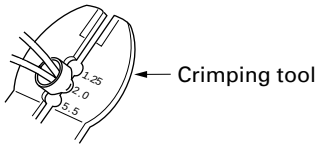


Fig.6

(5) Check the four points noted in Fig.7.

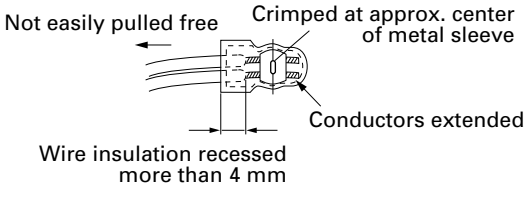

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

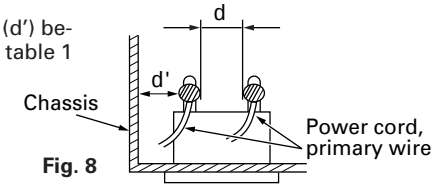


Fig. 8

4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method : (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

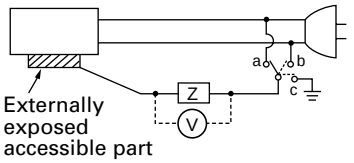


Fig. 9

5. Grounding (Class Ⅰ model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

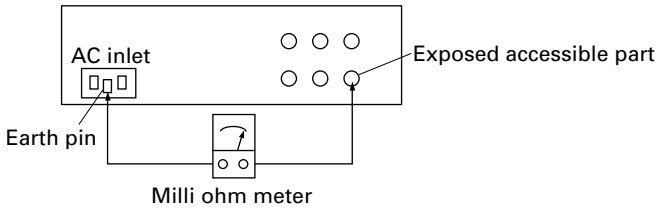


Fig. 10

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Voltage	Region	Insulation Resistance	Dielectric Strength	Clearance Distance
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦ R ≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

AC Voltage	Region	Load Z	Leakage Current i	Exposed Accessible Part
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 µF + 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

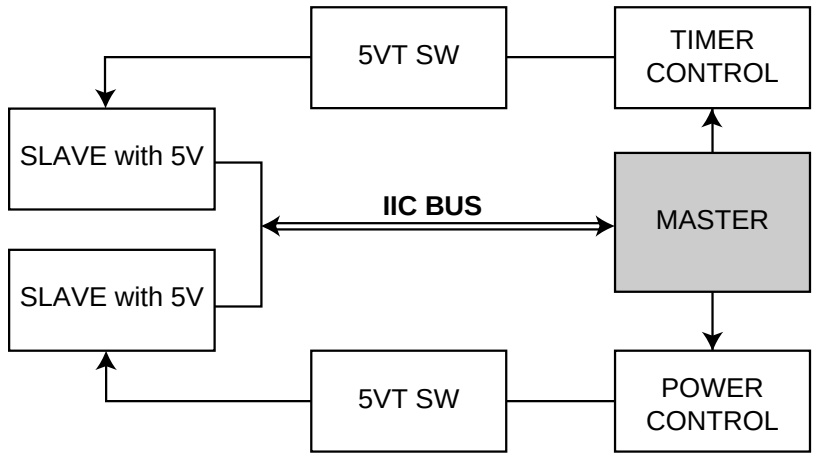
PROPOSAL FOR APPLYING SHORT PROTECTION

• The Contents of Examination

As all the IC that is applied to VCR is controlled by IIC, mutual communication, if Vcc of IC is short or open with detecting 'Acknowledge' data of the specific IC according to each power(5V, 5VT) μ-COM gets unable to detect 'ACK' data.

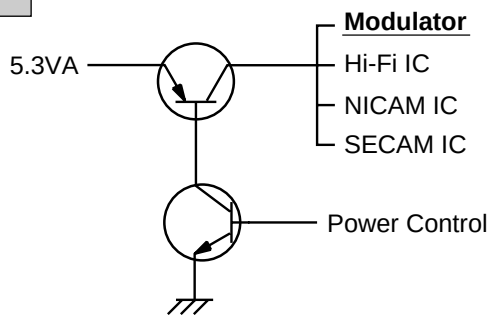
μ-COM regards this case as abnormal one and if it can't detect 'ACK' data for a certain time(3.5 sec) the signal of 'Power Control' and 'Timer Control' are switched to 'Low'. As a result POWER Switching TR is kept from generating heat and fire.

Conception BLOCK Diagram

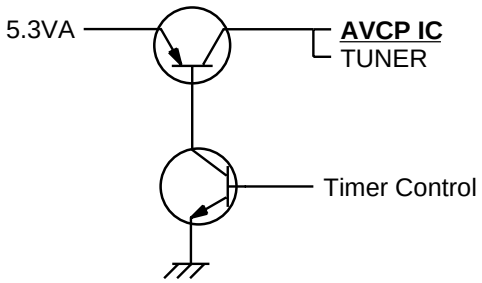


• POWER for each IC

5.2V



5.2VT



• IC to detect 'ACK' data is selected as below because IC is different in accordance to region and option

EF Series	5V POWER	SECAM IC
	5VT POWER	AVCP IC
Other Series	5V POWER	Modulator
	5VT POWER	AVCP IC

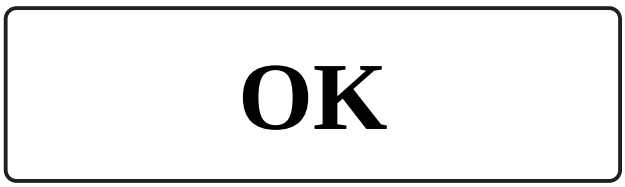
*Short protection off mode : DJ01 Diode in

SERVICE NOTICE ON REPLACING EEPROM

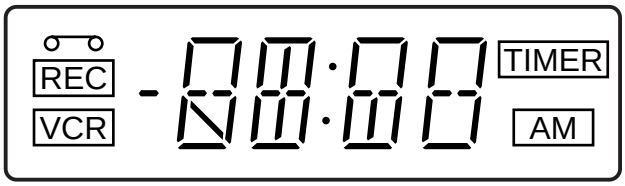
In case that defective EEPROM of PAL models is replaced, to operate these sets from the initial state MP KEY must be repaired as well before delivering to the customer.
If MP KEY isn't repaired the setting of RF OUT channel or LANGUAGE might be different from that for customer's country.

•**MP KEY** : In case of PAL VCR if holding the REC button on the front panel and the CLEAR button on the remote control handset for 5 ~ 7 seconds with power being switch all and no tapes, OK is displayed at FLD for FLD models and LED becomes on for LED CLOCK models. This is the state that initializing EEPROM is finished.
(In case of PAL VCP if holding the REC button on the front panel and the MENU button on the remote control handset for 5 ~ 7 seconds with power being off and no tapes, All the LED DOTs become on. This is the state that initializing EEPROM is finished.)

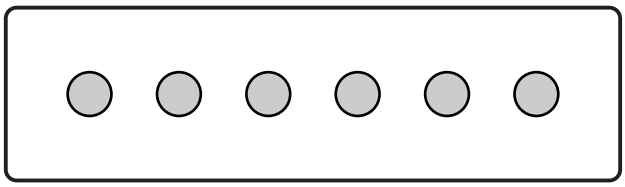
•**MP KEY's function** : MP KEY sets EEPROM's data up to the initial state.



• **FLD MODEL:**
MP KEY "OK"



• **LED CLOCK MODEL:**
MP KEY Switch all on a Light



• **LED DOT MODEL:**
MP KEY Switch all on a Light

SERVICE INFORMATION FOR EEPROM IC SETTING

EEPROM option code No. setting

NAME	HEX	BINARY
OPT1	00	00000000
OPT2	00	00000000
OPT3	00	00000000
OPT4	00	00000000
OPT5	00	00000000
OPT6	00	00000000

WR : OK I : EXIT MOVE : ◄►
EDIT : ▲▼

MASKROM : R00
EEPROM : R00 LG CODE

MODEL	NAME	HEX	BINARY
HR-V200EX	OPTION1	02	00000000
	OPTION2	C0	00000000
	OPTION3	87	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	08	00000000
HR-V200EY	OPTION1	02	00000000
	OPTION2	C0	00000000
	OPTION3	87	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	08	00000000
HR-V200EL	OPTION1	02	00000000
	OPTION2	C0	00000000
	OPTION3	87	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	08	00000000
HR-V205EX	OPTION1	E2	00000000
	OPTION2	C1	00000000
	OPTION3	8F	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	68	00000000
HR-V205EY	OPTION1	E2	00000000
	OPTION2	C1	00000000
	OPTION3	8F	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	68	00000000
HR-V205EL	OPTION1	E2	00000000
	OPTION2	C1	00000000
	OPTION3	8F	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	68	00000000
HR-V206EX	OPTION1	E2	00000000
	OPTION2	C1	00000000
	OPTION3	8F	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	68	00000000

EEPROM option code No. setting procedure

1. DETECT NEW EEPROM (OPTION EDIT SCREEN)
   - Eeprom EDIT screen automatically appears if replacing Eeprom.
   - Setup option data using the cursor Up/Down key of a remote control.
     (Setup upon BOM depending on OPT1~OPT6 model)
   - Since an initial remote control is set to LG for LG model, appropriately set optional data using the cursor Up/Down key.

2. EEPROM WRITED COMPLETE SCREEN
   - Writes data on EEPROM by using REMOCON "OK".
   - If completing the option data screen with a menu key, Powering Off is automatically done and the option edit screen is arranged.

3. PG ADJUST
   a) Insert the PAL SP Test Tape and play.
      Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the “ATR” is blink after the PAL SP Test Tape is inserted.
   b) Press the Auto PG KEY on JIG Remocon(1’st) or Press “REC” key on set and “CLEAR” key on Remocon.(Then check the blink “TRK OK” on CLK/LED-TRK is a Initial)
   c) Press the Auto PG Key on JIG Remocon again (2’nd) or press “REC” key on set and “CLEAR” key on Remocon again.(Then check the blink “PG NG > PG OK” on CLK/LED.)

4. EEPROM INITIAL
   - SETUP is displayed in the field if pressing the FRONT REC KEY with the remocon number "CLEAR" key pressed in the status of powering Off.
   - AUTO SEARCH is done since the initial screen of ACMS is serviced if powering On.
   - Check basic operation (PLAY/RECORD...)

MODEL	NAME	HEX	BINARY
HR-V206EY	OPTION1	E2	00000000
	OPTION2	C1	00000000
	OPTION3	8F	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	68	00000000
HR-V206EL	OPTION1	E2	00000000
	OPTION2	C1	00000000
	OPTION3	8F	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	68	00000000
HR-V500EX	OPTION1	0C	00000000
	OPTION2	C0	00000000
	OPTION3	83	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	08	00000000
HR-V500EY	OPTION1	0C	00000000
	OPTION2	C0	00000000
	OPTION3	83	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	08	00000000

EEPROM option code No. setting

MODEL	NAME	HEX	BINARY
HR-V500EL	OPTION1	0C	00000000
	OPTION2	C0	00000000
	OPTION3	83	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	08	00000000
HR-V505EX	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	08	00000000
HR-V505EY	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	08	00000000
HR-V505EL	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	08	00000000
HR-V506EX	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	08	00000000
HR-V506EY	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	08	00000000
HR-V506EL	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	08	00000000
HR-V507EX	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	30	00000000
	OPTION6	08	00000000
HR-V507EY	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	B0	00000000
	OPTION6	08	00000000

EEPROM option code No. setting

MODEL	NAME	HEX	BINARY
HR-V507EL	OPTION1	EC	00000000
	OPTION2	C1	00000000
	OPTION3	8B	00000000
	OPTION4	B1	00000000
	OPTION5	A0	00000000
	OPTION6	08	00000000
HR-V200EZ	OPTION1	02	00000000
	OPTION2	C8	00000000
	OPTION3	87	00000000
	OPTION4	B7	00000000
	OPTION5	00	00000000
	OPTION6	30	00000000
HR-V500EZ	OPTION1	0C	00000000
	OPTION2	C8	00000000
	OPTION3	83	00000000
	OPTION4	B7	00000000
	OPTION5	00	00000000
	OPTION6	10	00000000
HR-V505EZ	OPTION1	0C	00000000
	OPTION2	C8	00000000
	OPTION3	8B	00000000
	OPTION4	B7	00000000
	OPTION5	00	00000000
	OPTION6	10	00000000
HR-V205EK	OPTION1	02	00000000
	OPTION2	C0	00000000
	OPTION3	8B	00000000
	OPTION4	A4	00000000
	OPTION5	00	00000000
	OPTION6	03	00000000
HR-V505EK	OPTION1	2C	00000000
	OPTION2	C0	00000000
	OPTION3	8B	00000000
	OPTION4	A4	00000000
	OPTION5	00	00000000
	OPTION6	03	00000000
HR-V205EF	OPTION1	62	00000000
	OPTION2	C0	00000000
	OPTION3	0F	00000000
	OPTION4	B0	00000000
	OPTION5	62	00000000
	OPTION6	00	00000000
HR-V505EF	OPTION1	6C	00000000
	OPTION2	C0	00000000
	OPTION3	0B	00000000
	OPTION4	B0	00000000
	OPTION5	62	00000000
	OPTION6	00	00000000

WR : OK I : EXIT MOVE : ◄►
EDIT : ▲▼

SPECIFICATIONS

General

Power	: 200~240V, 50/60Hz
Power consumption	: Approx. 12 watts(Energy Saving mode : 3 watts)
Video Head system	: Rotary 2heads, helical scanning system (2HD MODEL) Double azimuth 4 heads, helical scanning system (4HD Hi-Fi Model)
Tape speed	: 23.39 mm/sec (SP mode)11.69 mm/sec(LP mode)
Tape format	: Tape width 1/2” (12.7 mm high density VHS tape)
Maximum recording time	: 4 hours in SP mode/8 hours in LP mode (with E-240 tape)
Rewind time	: Approx. 150 sec. (with E-180 tape)
Dimensions (W X H X D)	: 360 x 94.5 x 270 mm
Weight	: 9.0 lbs. (4.0 kg)
Operating temperature	: 41°F-95°F (5°C-35°C)
Operating humidity	: Less than 80%
Timer	: 24 hours display type

Video

Input level	: VIDEO IN (SCART, RCA type) 1.0 Vp-p, 75 ohm, unbalanced
Output level	: VIDEO OUT (SCART type) 1.0 Vp-p, 75 ohm, unbalanced
Signal to noise ratio	: More than 43 dBm

Audio

Input level	: AUDIO IN (SCART, RCA type) Scart type : -6.0dBm, more than 10kΩ RCA type : -6.0 dBm, more than 47kΩ
Output level	: AUDIO OUT (SCART, RCA type) Scart type : -6.0dBm, less than 1kΩ RCA type : -6.0 dBm, less than 1kΩ
Audio track	Mono track & Hi-Fi track
Audio signal to noise ratio	: Normal : More than 70 dBm(JIS A filter)
Audio dynamic range	: Hi-Fi audio : More than 85 dBm(JIS A filter)

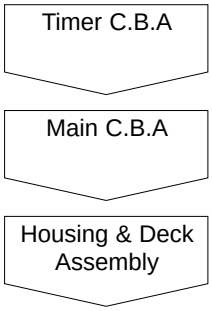
• Design and specifications are subject to change without notice.

:Hi-Fi Model only

SECTION 2 CABINET & MAIN CHASSIS
SERVICE METHOD

Electrical Part

(1) Re-assembly Flow for service like Fig. 2-1



(2) To check and replace Electrical parts
- ① Re-assemble the unit according to No.1) Re-assembly Flow.
- ② Place the unit like Fig. 2-1
- ③ Check and replace Electrical parts.

NOTE :
- ① Insert Video Cassette Tape inversely like Fig. 2-1 to check and replace defective parts.
- ② In disassembling and reassembling, be careful not to damaged CST switch.

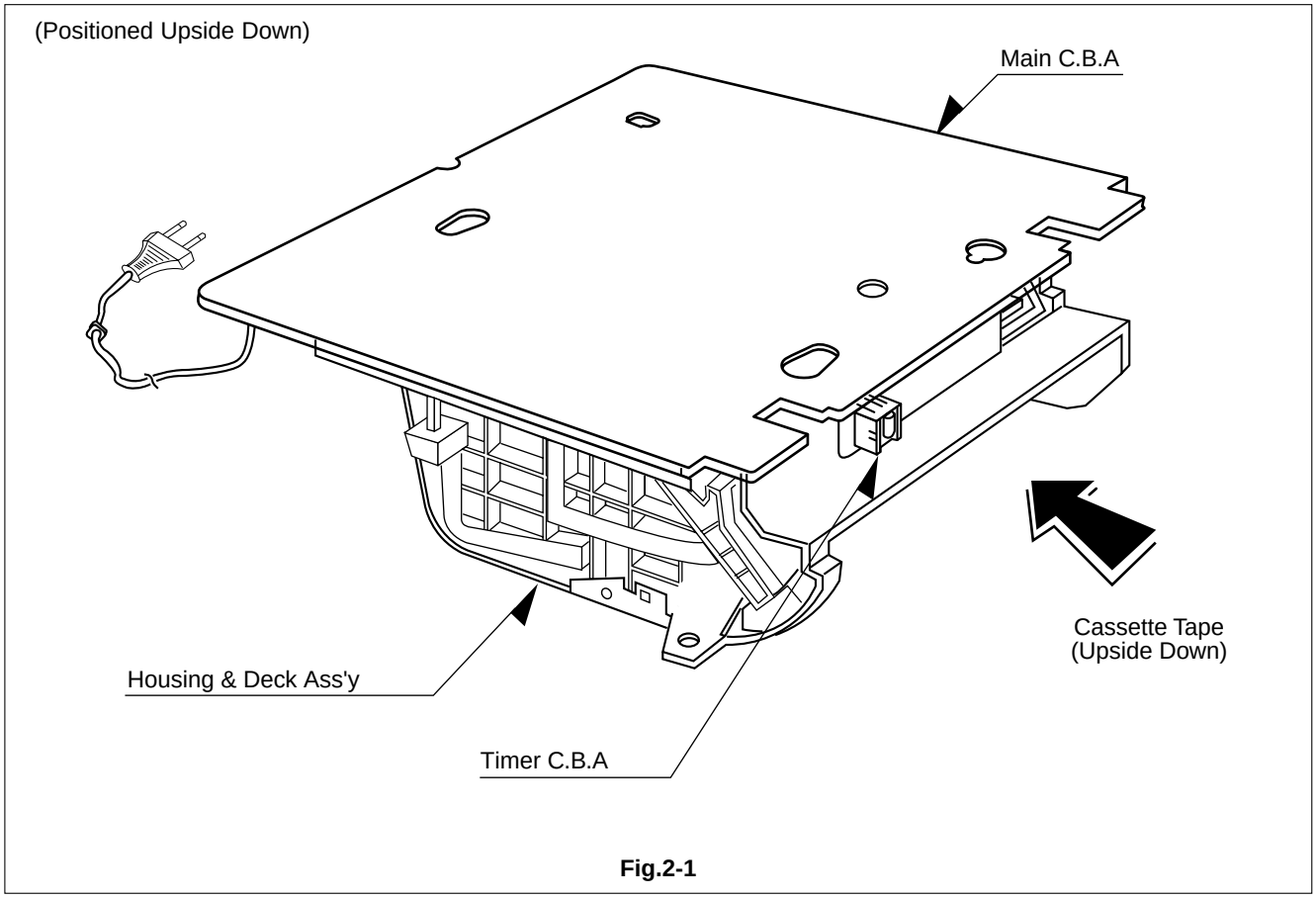
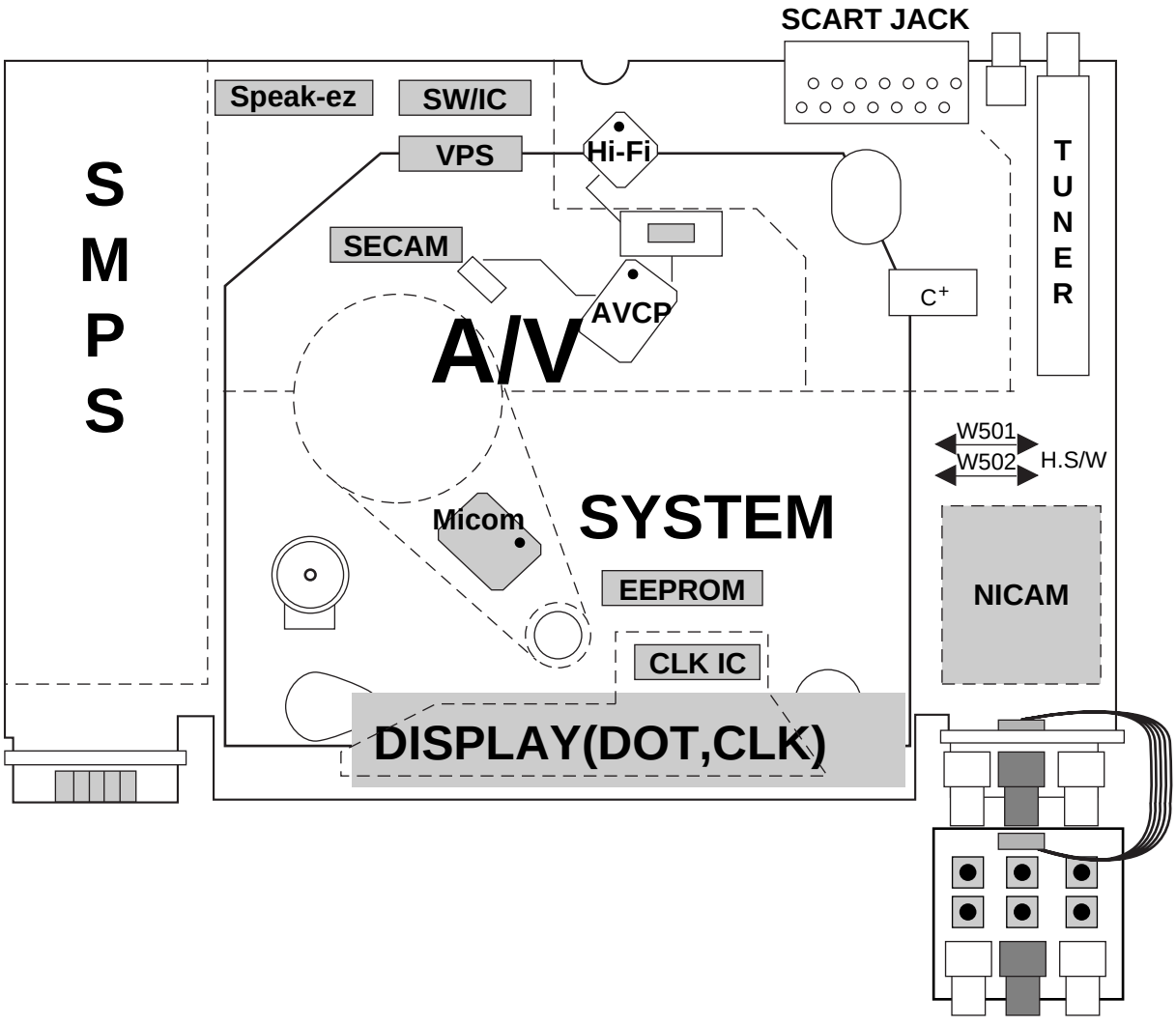


Fig.2-1

SECTION 3 ELECTRICAL
ELECTRICAL ADJUSTMENT POINTS ARRANGEMENT

: Measurement point
: Adjustment point



(COMPONENT SIDE)

ELECTRICAL ADJUSTMENT PROCEDURES

1. Servo Adjustment

1) PG Adjustment

• Test Equipment

a) OSCILLOSCOPE
b) PAL TEST TAPE (VHS SP)
c) JIG REMOCON (AUTO PG SETTING)

• Adjustment And Specification

MODE	MEASUREMENT POINT	ADJUSTMENT POINT	SPECIFICATION
PLAY	V.Out H/SW(W501, W502)		6.5 ± 0.5H

• Adjustment Procedure

a) Insert the PAL SP Test Tape and play.
Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the “ATR” is blink after the PAL SP Test Tape is inserted.

b) Press the Auto PG KEY on JIG Remocon(1’st) or Press “REC” key on set and “CLEAR” key on Remocon.(Then check the blink “TRK OK” on CLK/LED-TRK is a Initial)

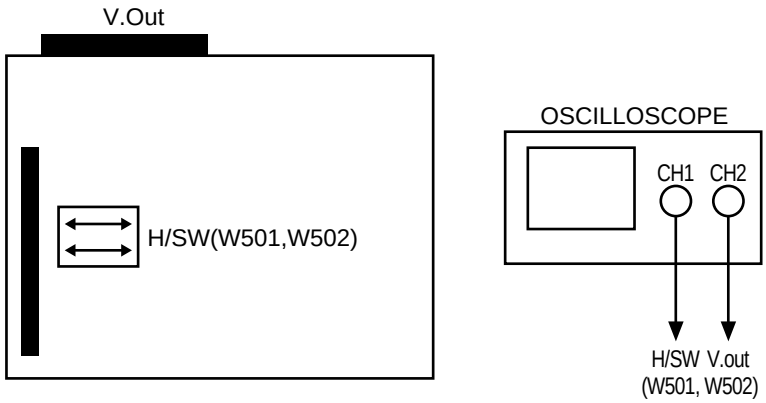
c) Press the Auto PG Key on JIG Remocon again (2’nd) or press “REC” key on set and “CLEAR” key on Remocon again.(Then check the blink “PG NG > PG OK” on CLK/LED.)

• Check the PG

a) Connect the CH1 of the oscilloscope to the H/SW and CH2 to the Video out for the VCR.

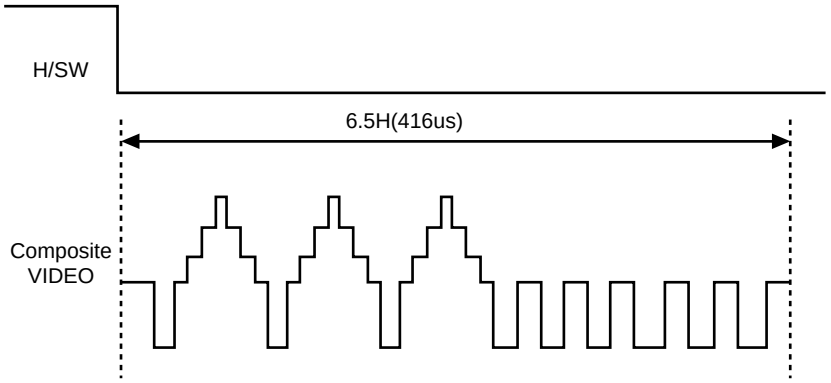
b) Trigger the mixed Video Signal of CH2 to the CH1 H/SW(W501, W502), and then check the distance (time difference), which is from the selected A(B) Head point of the H/SW(W501, W502) signal to the starting point of the vertical synchronized signal, to 6.5H ± 0.5H (416μs, 1H=64.0μs).

• CONNECTION



ELECTRICAL ADJUSTMENT PROCEDURES

- **WAVEFORM**



- **Attension and Reference**

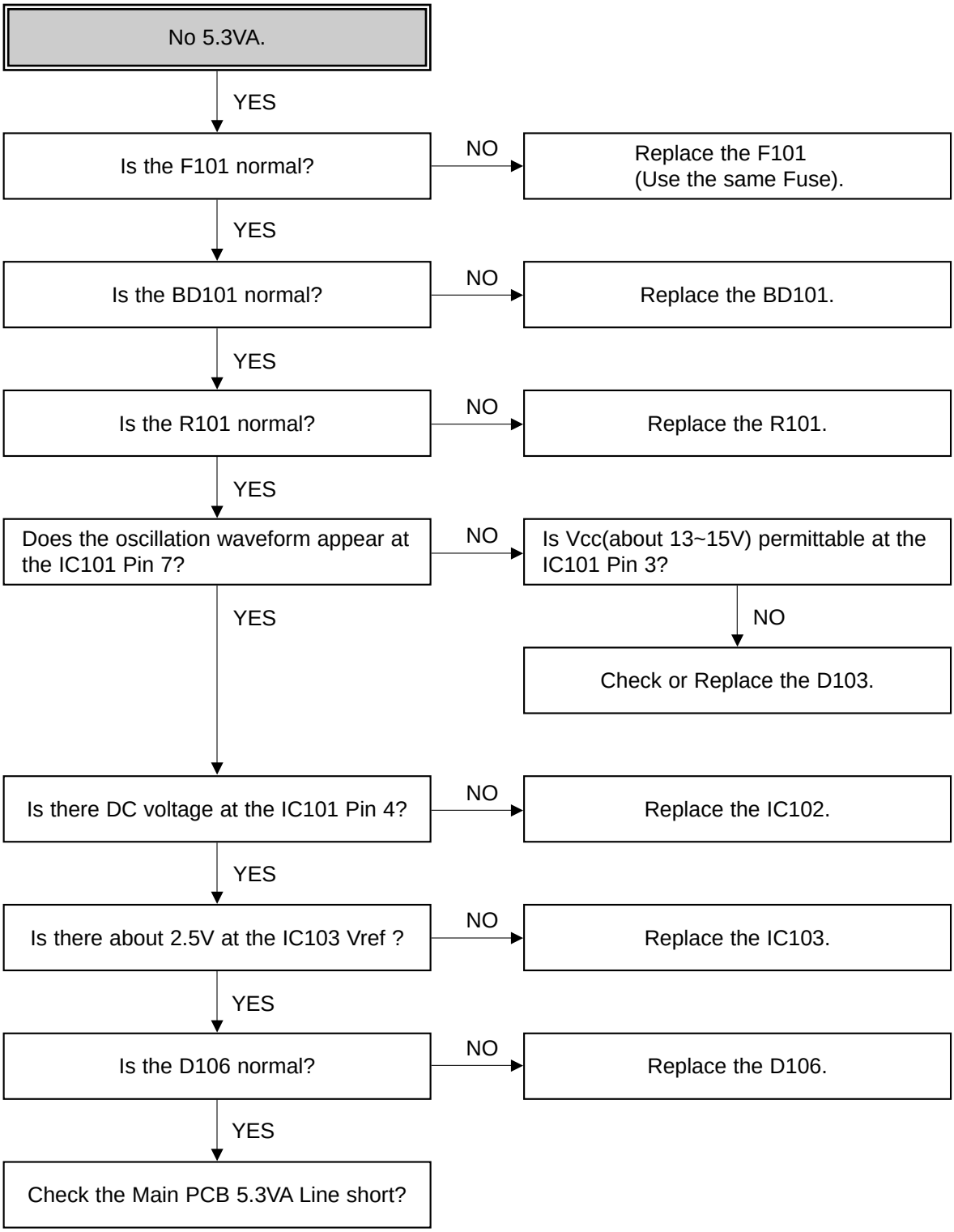
a) The PG checking must do when RF Level is Maximum and SERVO system is Locking (MTR MODE)

b) V.H/SW Level is 2Vpp.

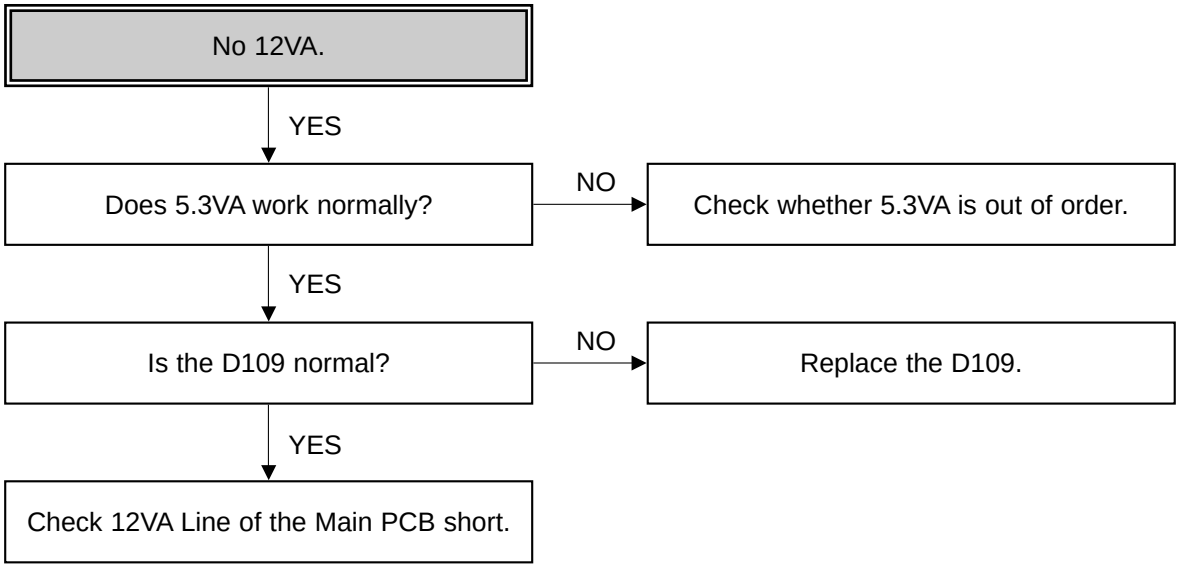
ELECTRICAL TROUBLESHOOTING GUIDE

1. Power Circuit(SMPS)

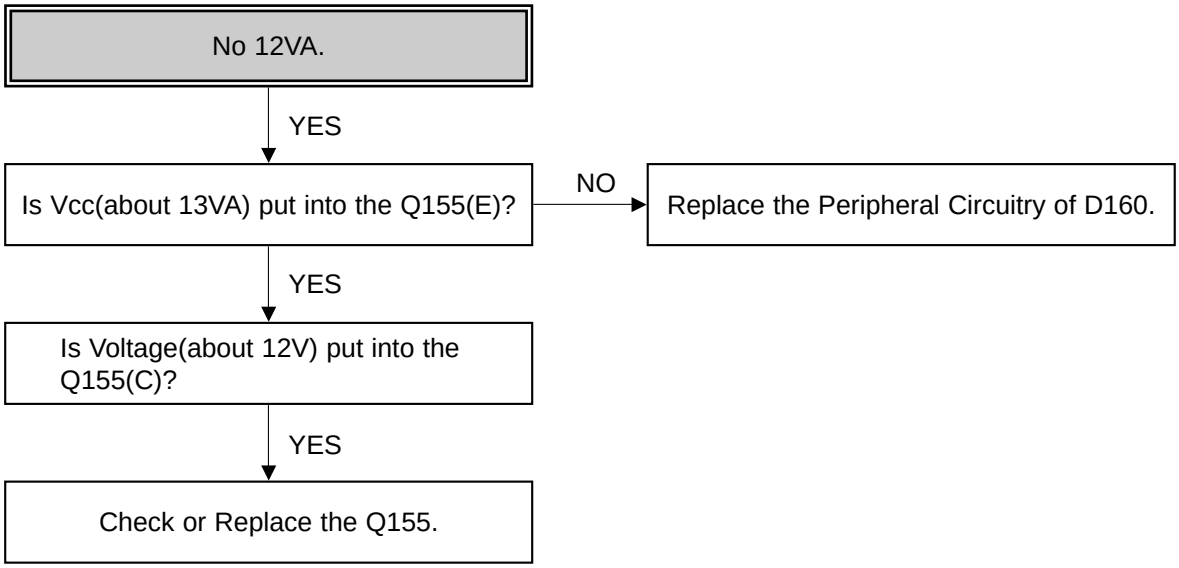
(1) No 5.3VA.



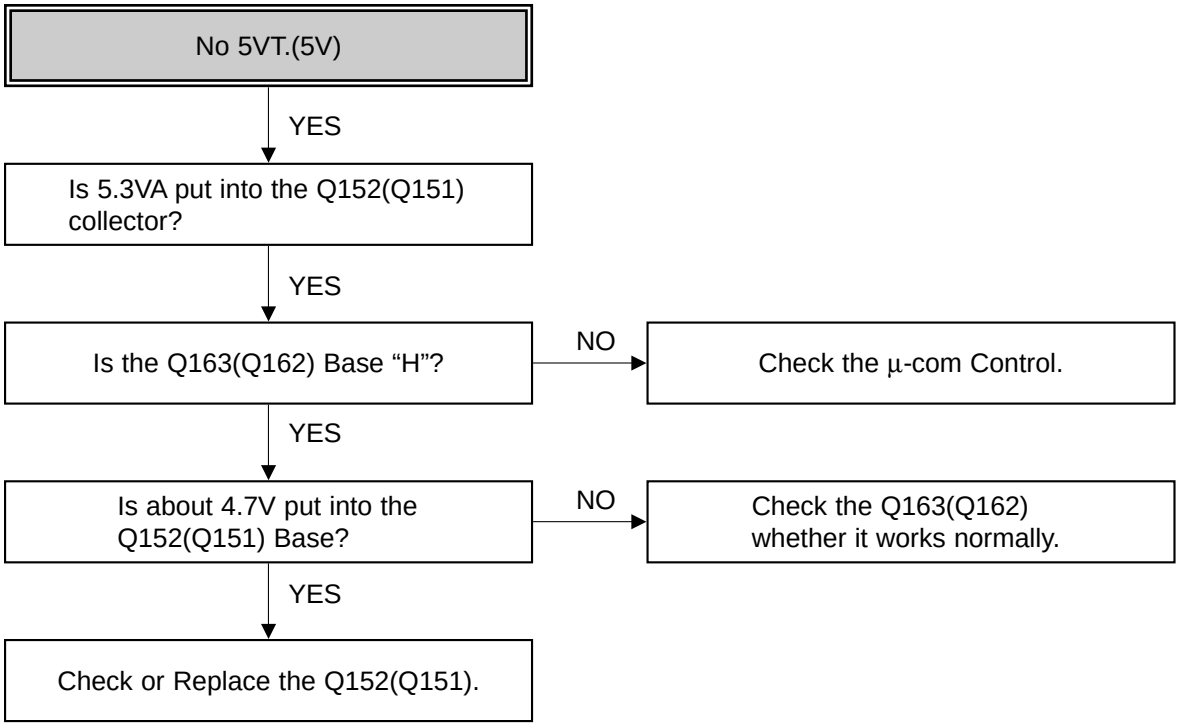
(2) No 12VA.(Capstan)



(3) No 12VA (CANAL, Buffer)

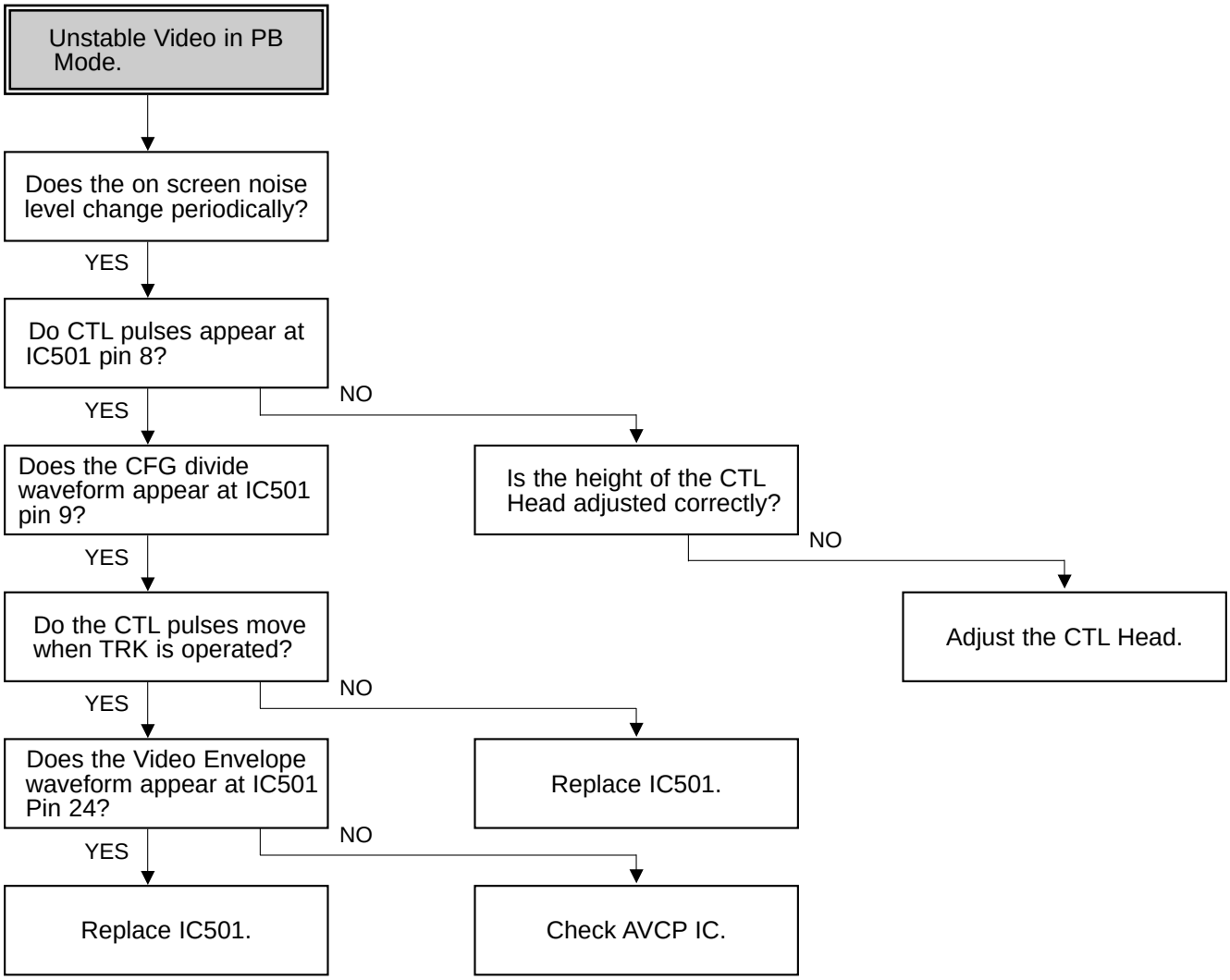


(4) No 5VT(5V)

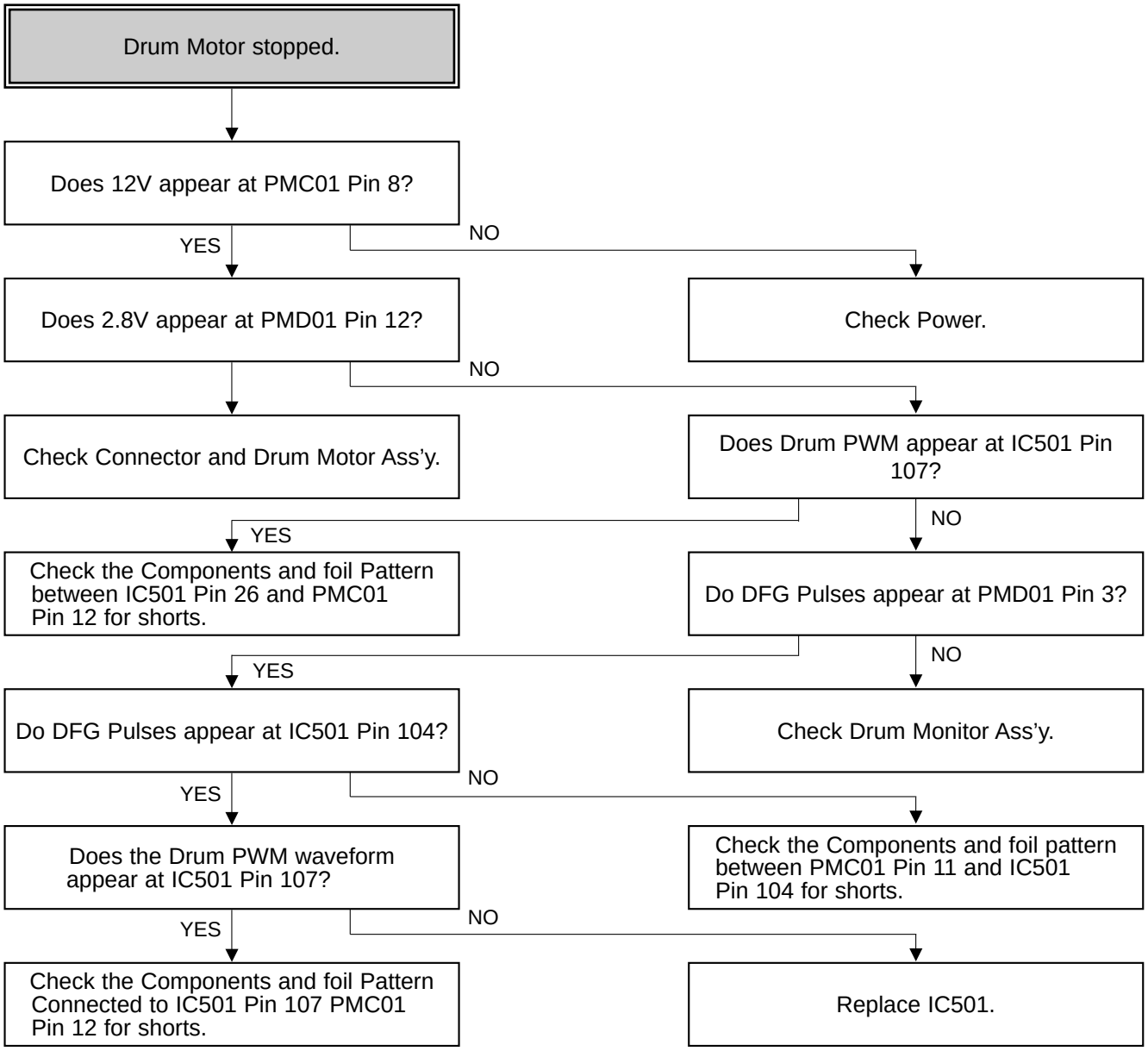

No 5VT.(5V)
YES
Is 5.3VA put into the Q152(Q151) collector?
YES
Is the Q163(Q162) Base “H”?
NO
Check the μ-com Control.
YES
Is about 4.7V put into the Q152(Q151) Base?
NO
Check the Q163(Q162) whether it works normally.
YES
Check or Replace the Q152(Q151).

2. Servo Circuit

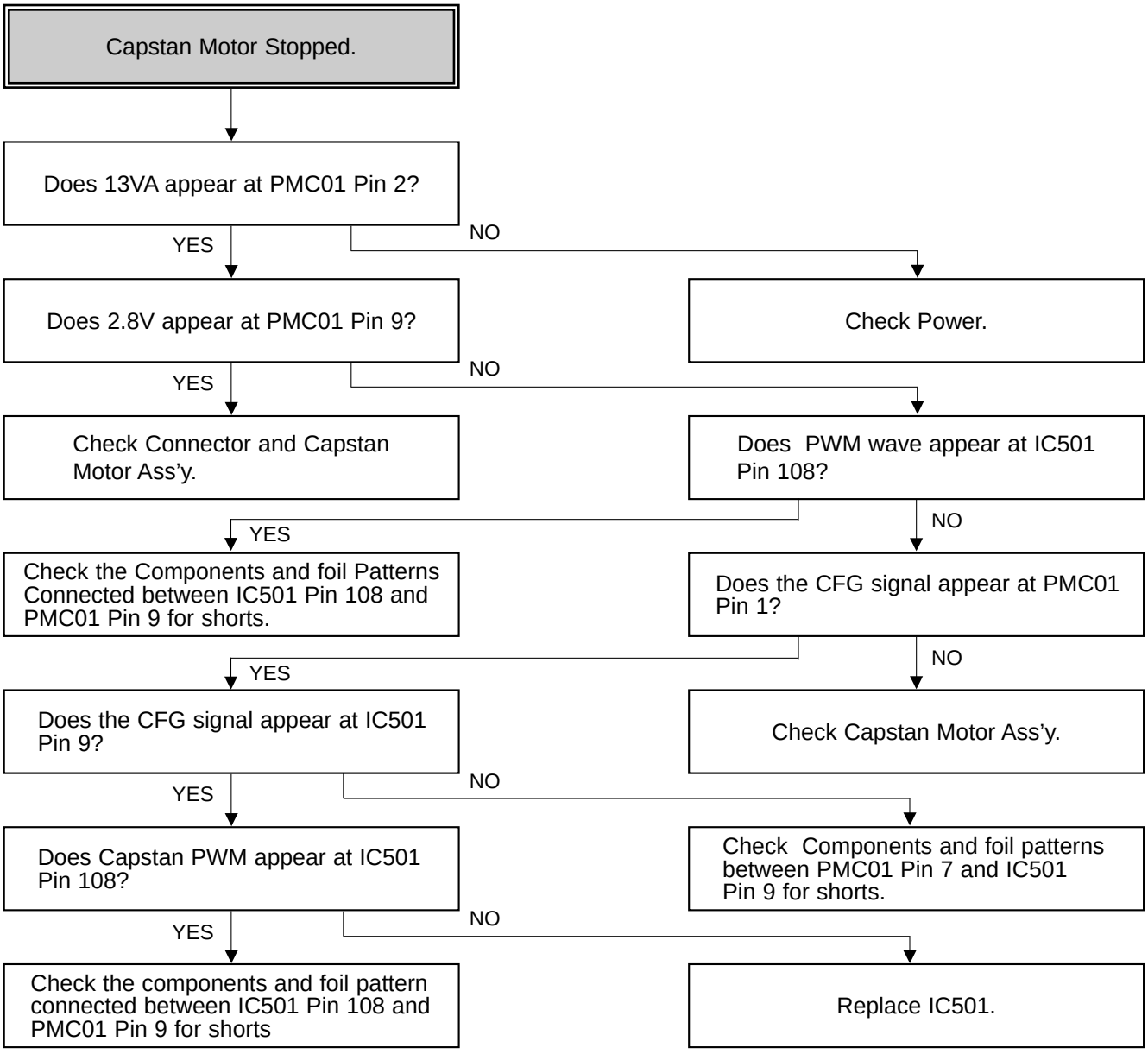
A.


Unstable Video in PB Mode.
Does the on screen noise level change periodically?
YES
Do CTL pulses appear at IC501 pin 8?
NO
YES
Does the CFG divide waveform appear at IC501 pin 9?
Is the height of the CTL Head adjusted correctly?
NO
YES
Adjust the CTL Head.
Do the CTL pulses move when TRK is operated?
NO
YES
Does the Video Envelope waveform appear at IC501 Pin 24?
Replace IC501.
NO
YES
Replace IC501.
Check AVCP IC.

B.

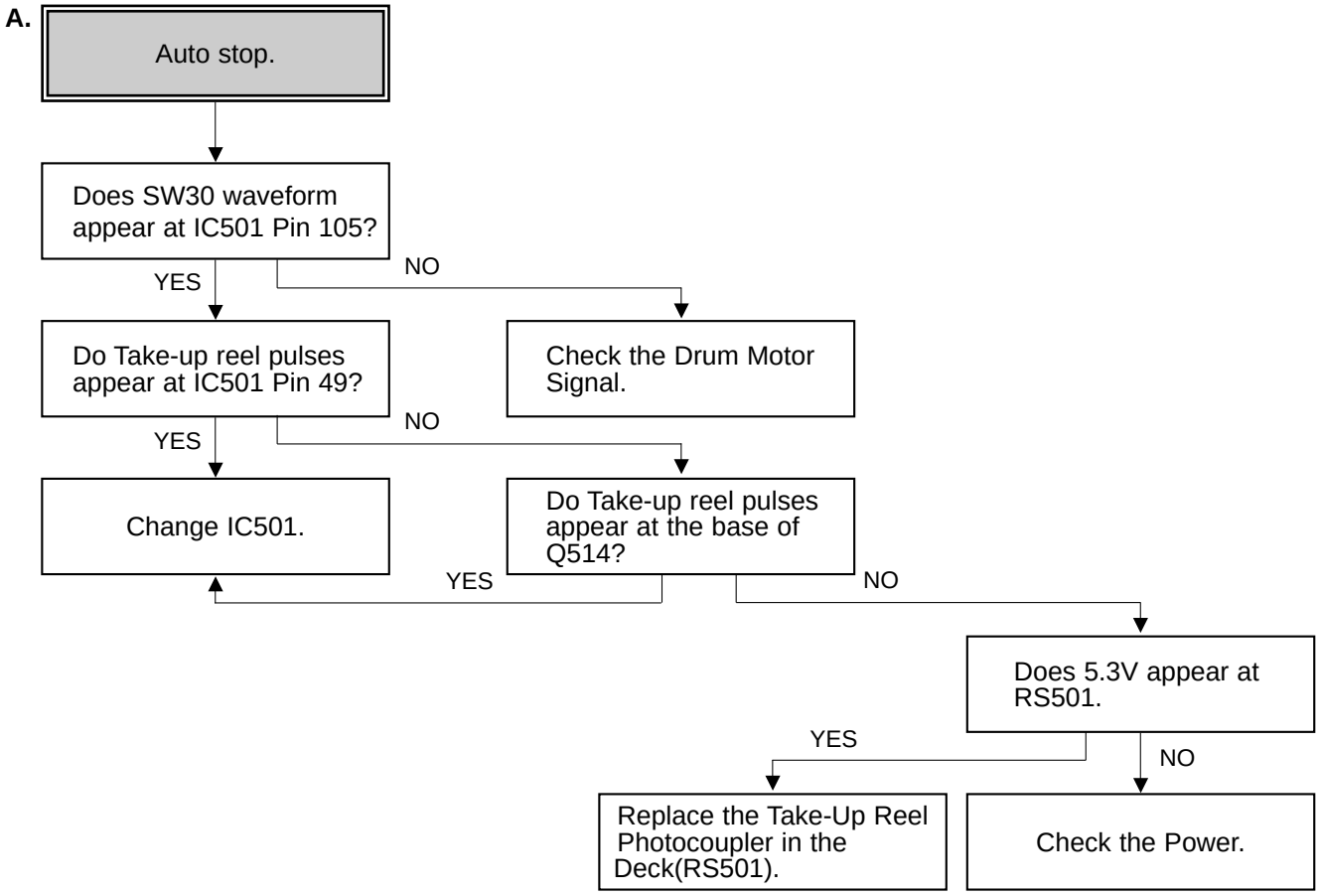

Drum Motor stopped.
Does 12V appear at PMC01 Pin 8?
YES
NO
Does 2.8V appear at PMD01 Pin 12?
Check Power.
NO
Check Connector and Drum Motor Ass'y.
Does Drum PWM appear at IC501 Pin 107?
YES
NO
Check the Components and foil Pattern between IC501 Pin 26 and PMC01 Pin 12 for shorts.
Do DFG Pulses appear at PMD01 Pin 3?
YES
NO
Do DFG Pulses appear at IC501 Pin 104?
Check Drum Monitor Ass'y.
YES
NO
Does the Drum PWM waveform appear at IC501 Pin 107?
Check the Components and foil pattern between PMC01 Pin 11 and IC501 Pin 104 for shorts.
YES
NO
Check the Components and foil Pattern Connected to IC501 Pin 107 PMC01 Pin 12 for shorts.
Replace IC501.

C.

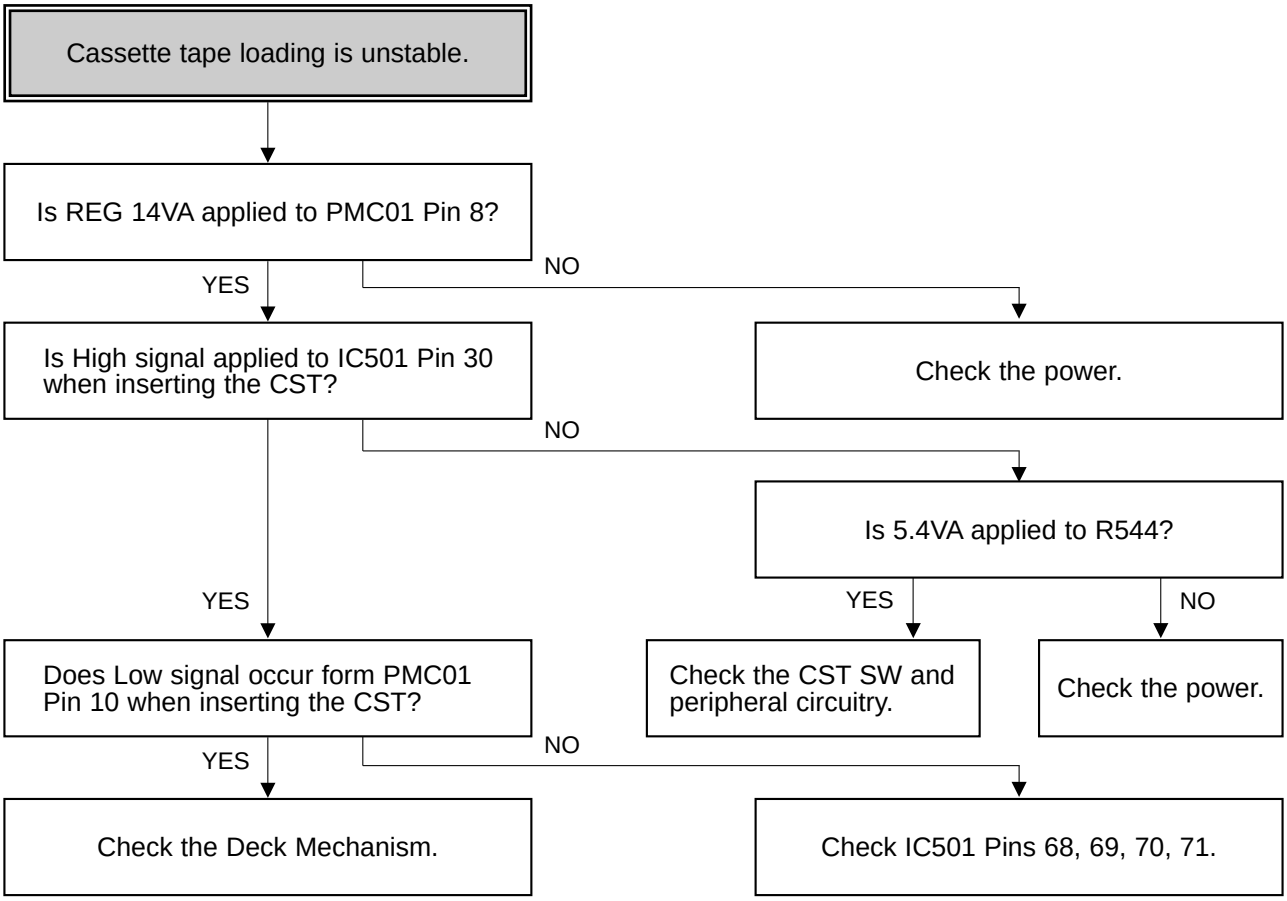

Capstan Motor Stopped.
Does 13VA appear at PMC01 Pin 2?
YES
NO
Does 2.8V appear at PMC01 Pin 9?
Check Power.
YES
NO
Check Connector and Capstan Motor Ass'y.
Does PWM wave appear at IC501 Pin 108?
YES
NO
Check the Components and foil Patterns Connected between IC501 Pin 108 and PMC01 Pin 9 for shorts.
Does the CFG signal appear at PMC01 Pin 1?
YES
NO
Does the CFG signal appear at IC501 Pin 9?
Check Capstan Motor Ass'y.
YES
NO
Does Capstan PWM appear at IC501 Pin 108?
Check Components and foil patterns between PMC01 Pin 7 and IC501 Pin 9 for shorts.
YES
NO
Check the components and foil pattern connected between IC501 Pin 108 and PMC01 Pin 9 for shorts
Replace IC501.

3. System & Front Panel Circuit

A.

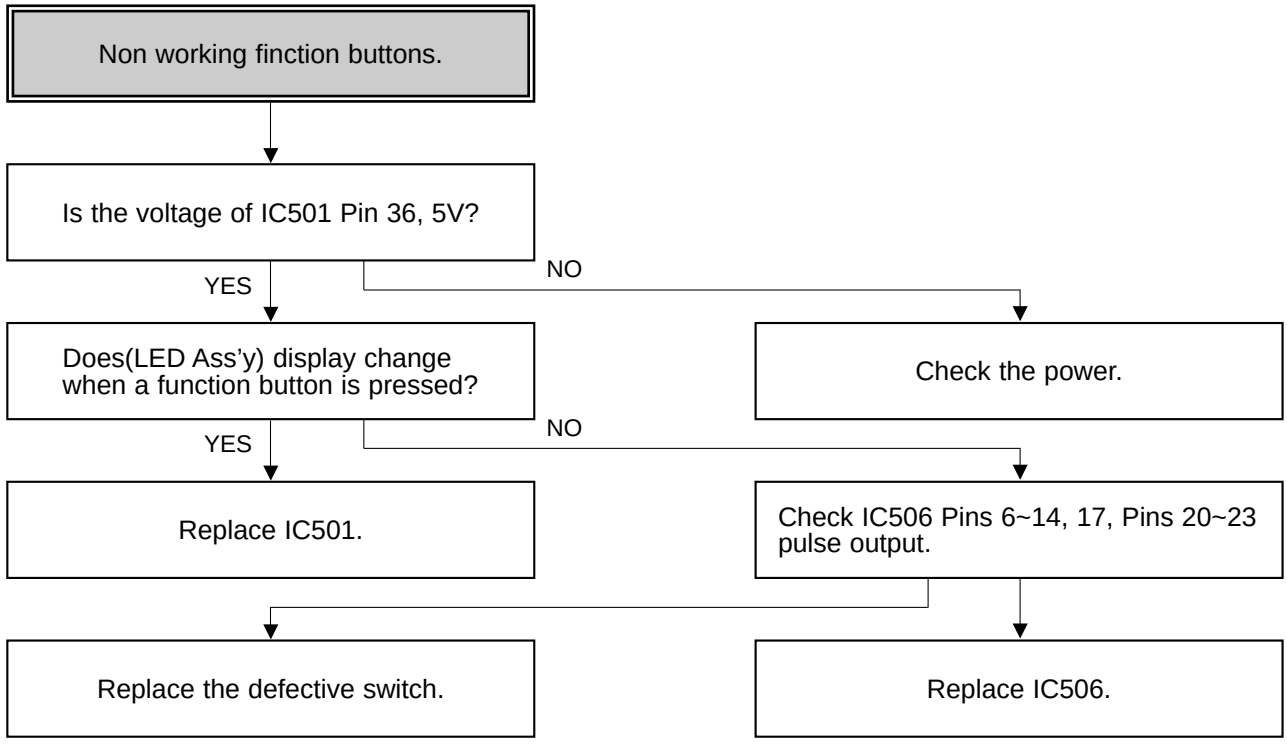


B.


Cassette tape loading is unstable.
Is REG 14VA applied to PMC01 Pin 8?
YES
NO
Is High signal applied to IC501 Pin 30 when inserting the CST?
Check the power.
NO
Is 5.4VA applied to R544?
YES
YES
NO
Does Low signal occur form PMC01 Pin 10 when inserting the CST?
Check the CST SW and peripheral circuitry.
Check the power.
YES
NO
Check the Deck Mechanism.
Check IC501 Pins 68, 69, 70, 71.

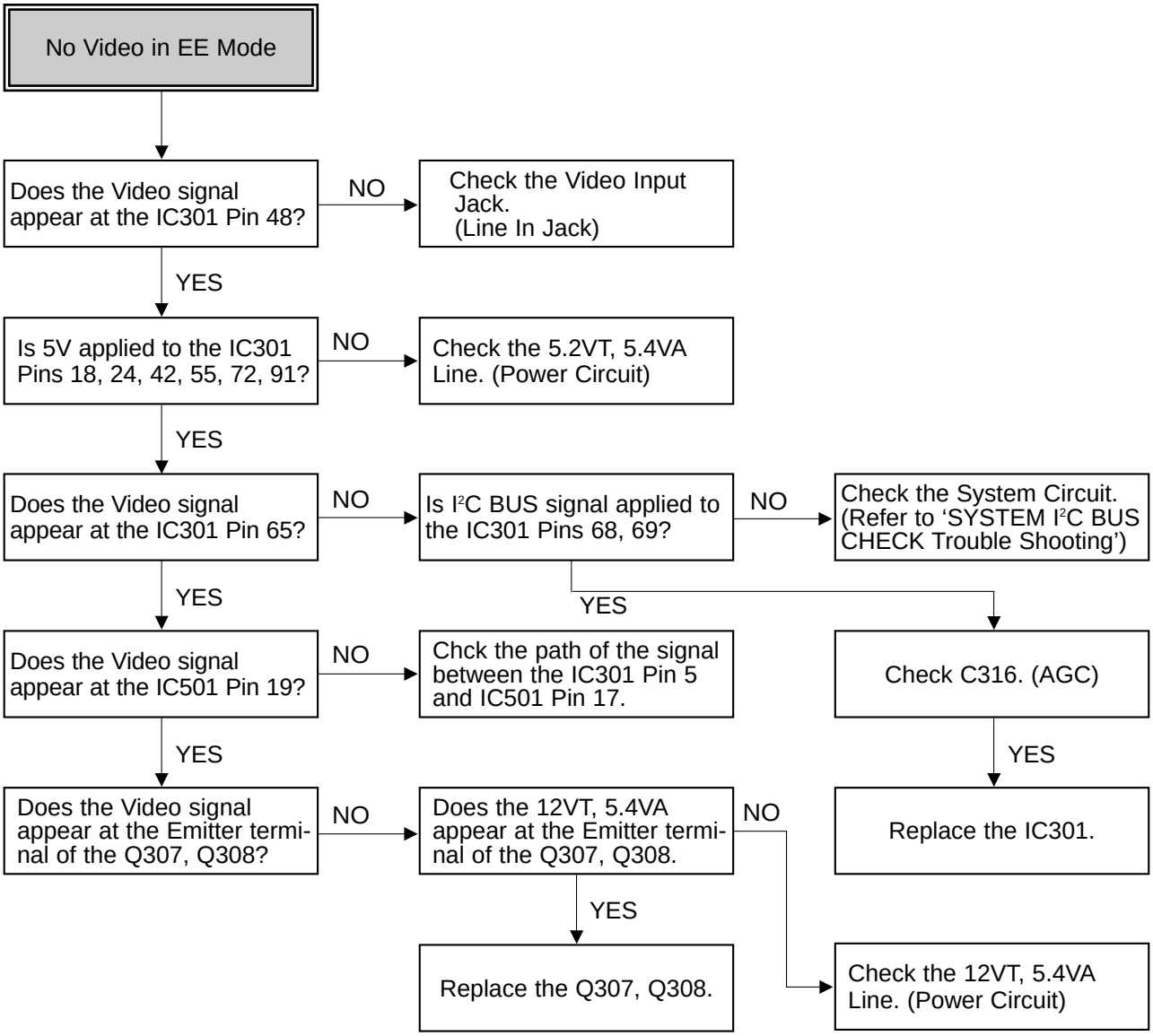
NOTE : Auto stop may also be caused by lack of lubrication,due to dried grease or oil.

C.

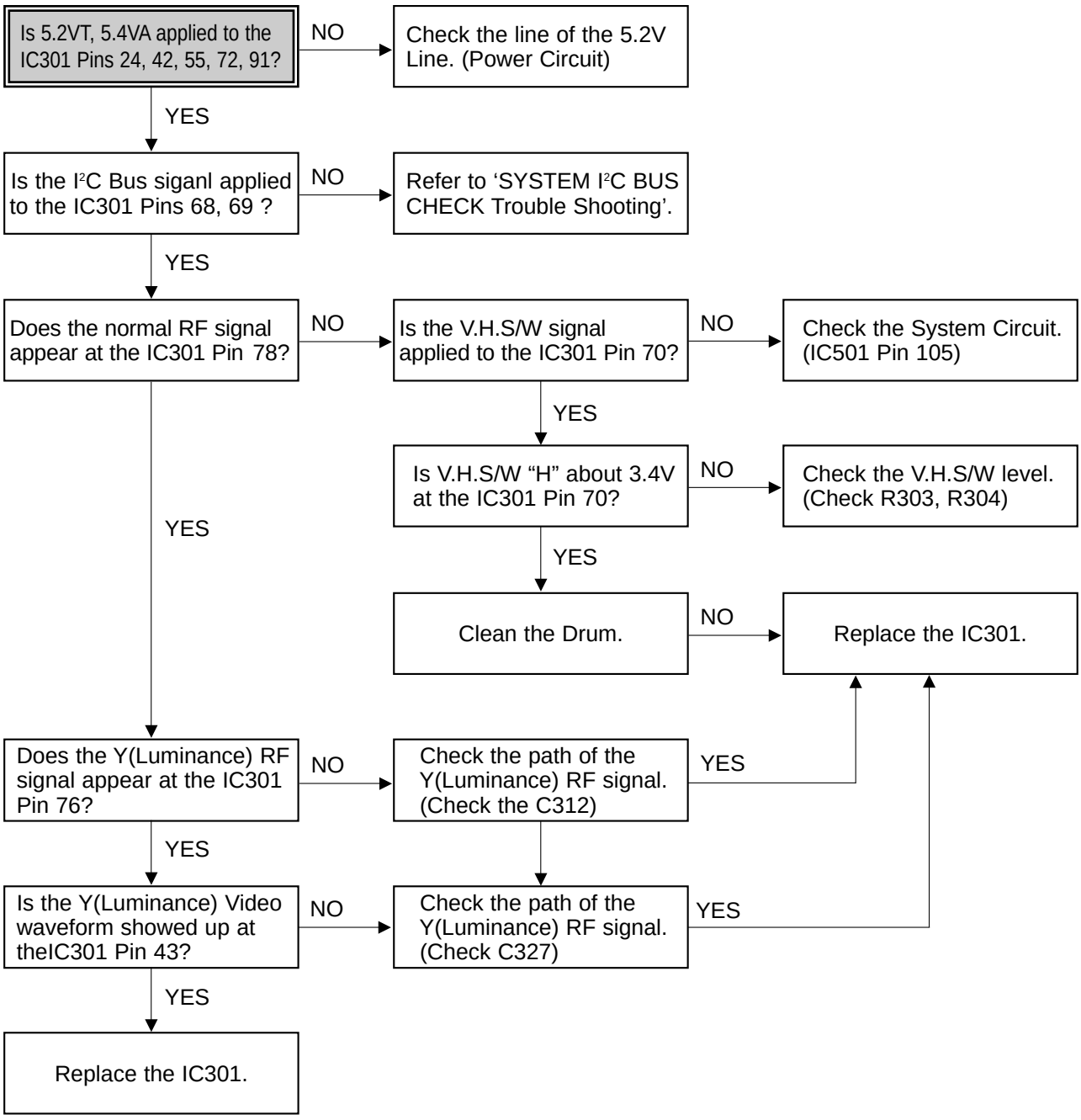


4. Y/C CIRCUIT

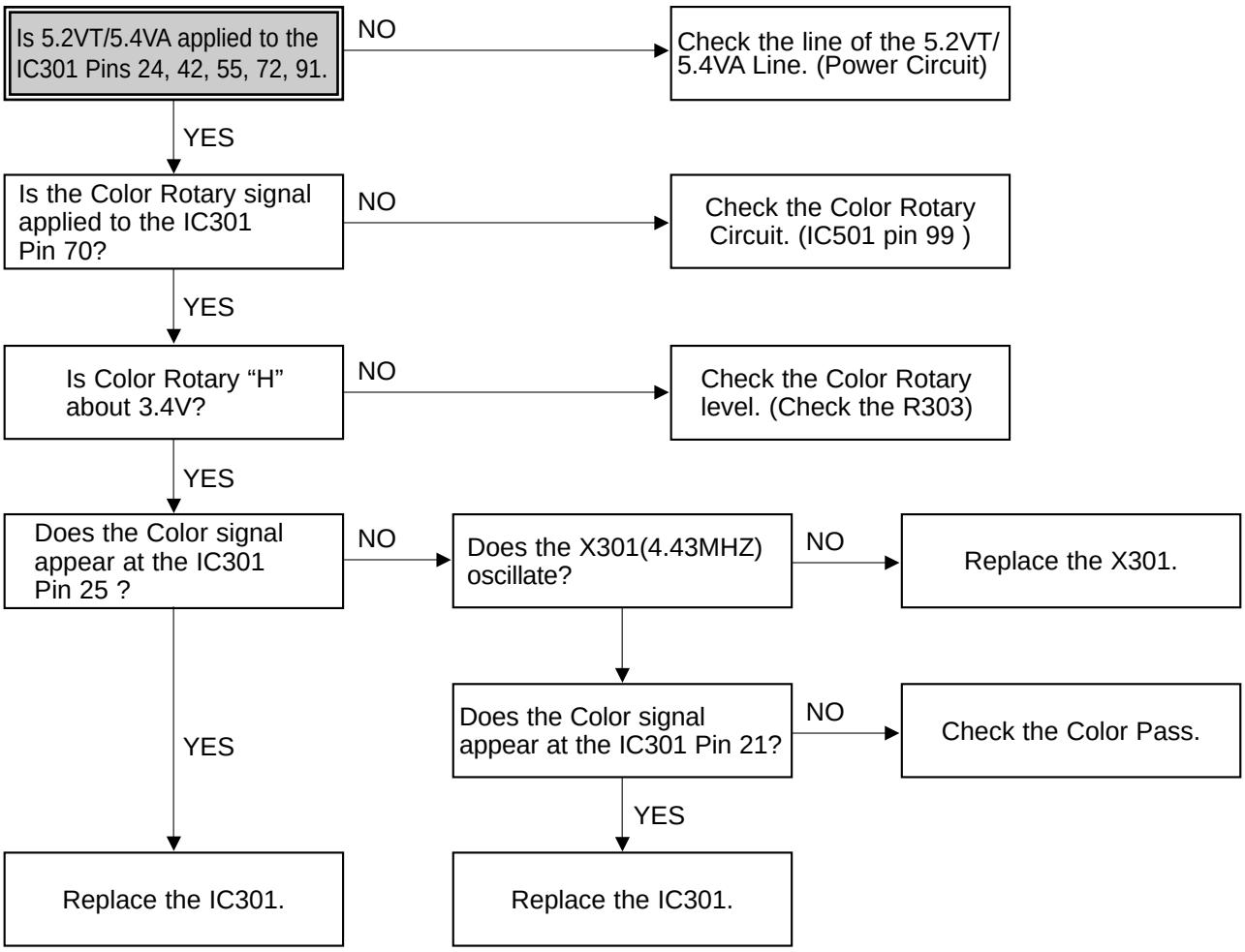
(1) No Video in EE Mode,


No Video in EE Mode
Does the Video signal appear at the IC301 Pin 48?
NO
Check the Video Input Jack. (Line In Jack)
YES
Is 5V applied to the IC301 Pins 18, 24, 42, 55, 72, 91?
NO
Check the 5.2VT, 5.4VA Line. (Power Circuit)
YES
Does the Video signal appear at the IC301 Pin 65?
NO
Is I²C BUS signal applied to the IC301 Pins 68, 69?
NO
Check the System Circuit. (Refer to 'SYSTEM I²C BUS CHECK Trouble Shooting')
YES
YES
Does the Video signal appear at the IC501 Pin 19?
NO
Chck the path of the signal between the IC301 Pin 5 and IC501 Pin 17.
Check C316. (AGC)
YES
YES
Does the Video signal appear at the Emitter terminal of the Q307, Q308?
NO
Does the 12VT, 5.4VA appear at the Emitter terminal of the Q307, Q308.
NO
Replace the IC301.
YES
Replace the Q307, Q308.
Check the 12VT, 5.4VA Line. (Power Circuit)

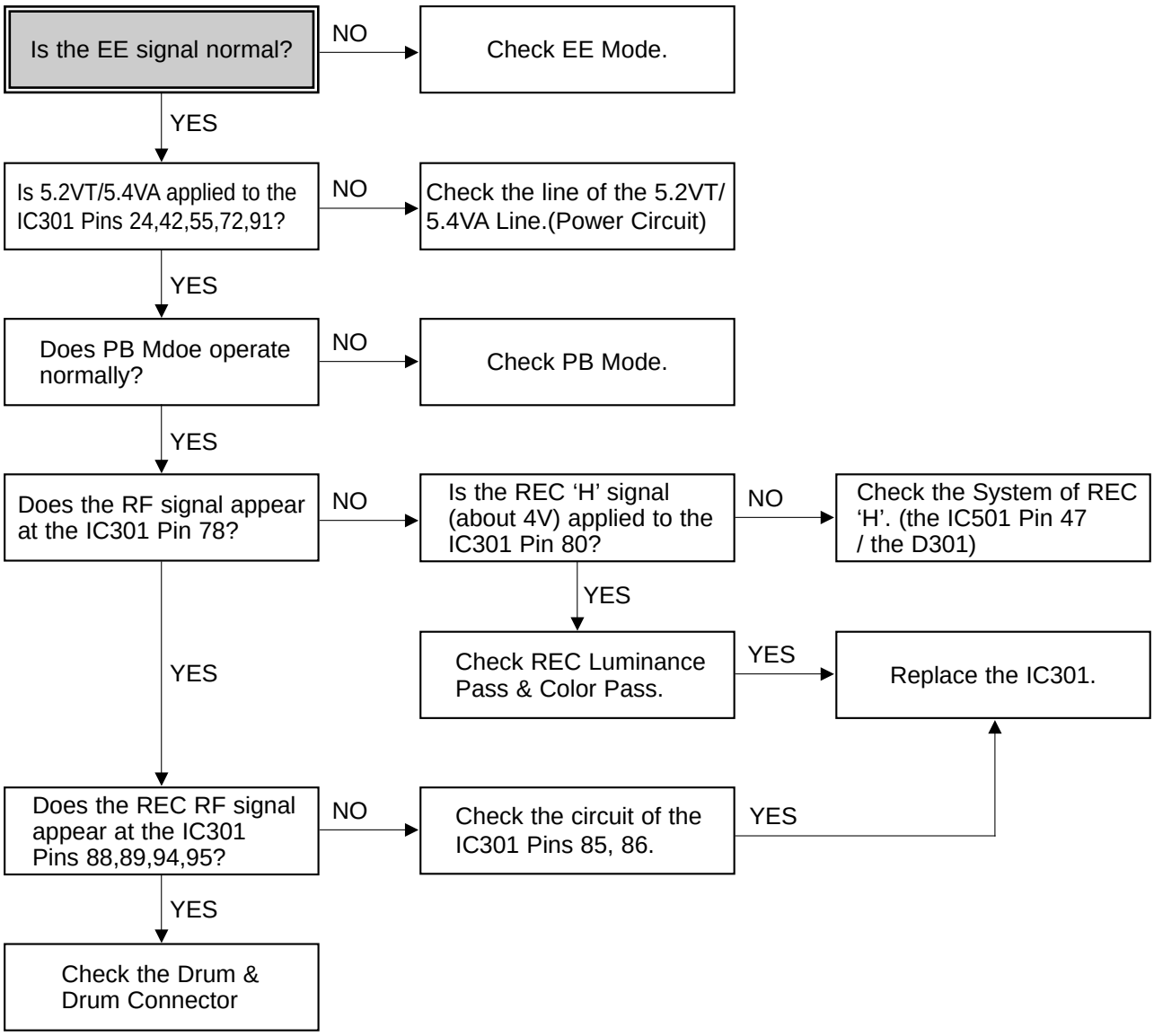
(2) When the Y(Luminance) signal doesn't appear on the screen in PB Mode,


Is 5.2VT, 5.4VA applied to the IC301 Pins 24, 42, 55, 72, 91?
NO
Check the line of the 5.2V Line. (Power Circuit)
YES
Is the I²C Bus siganl applied to the IC301 Pins 68, 69 ?
NO
Refer to 'SYSTEM I²C BUS CHECK Trouble Shooting'.
YES
Does the normal RF signal appear at the IC301 Pin 78?
NO
Is the V.H.S/W signal applied to the IC301 Pin 70?
NO
Check the System Circuit. (IC501 Pin 105)
YES
Is V.H.S/W "H" about 3.4V at the IC301 Pin 70?
NO
Check the V.H.S/W level. (Check R303, R304)
YES
YES
Clean the Drum.
NO
Replace the IC301.
Does the Y(Luminance) RF signal appear at the IC301 Pin 76?
NO
Check the path of the Y(Luminance) RF signal. (Check the C312)
YES
YES
Is the Y(Luminance) Video waveform showed up at theIC301 Pin 43?
NO
Check the path of the Y(Luminance) RF signal. (Check C327)
YES
YES
Replace the IC301.

(3) When the C(Color) signal doesn't appear on the screen in PB Mode,

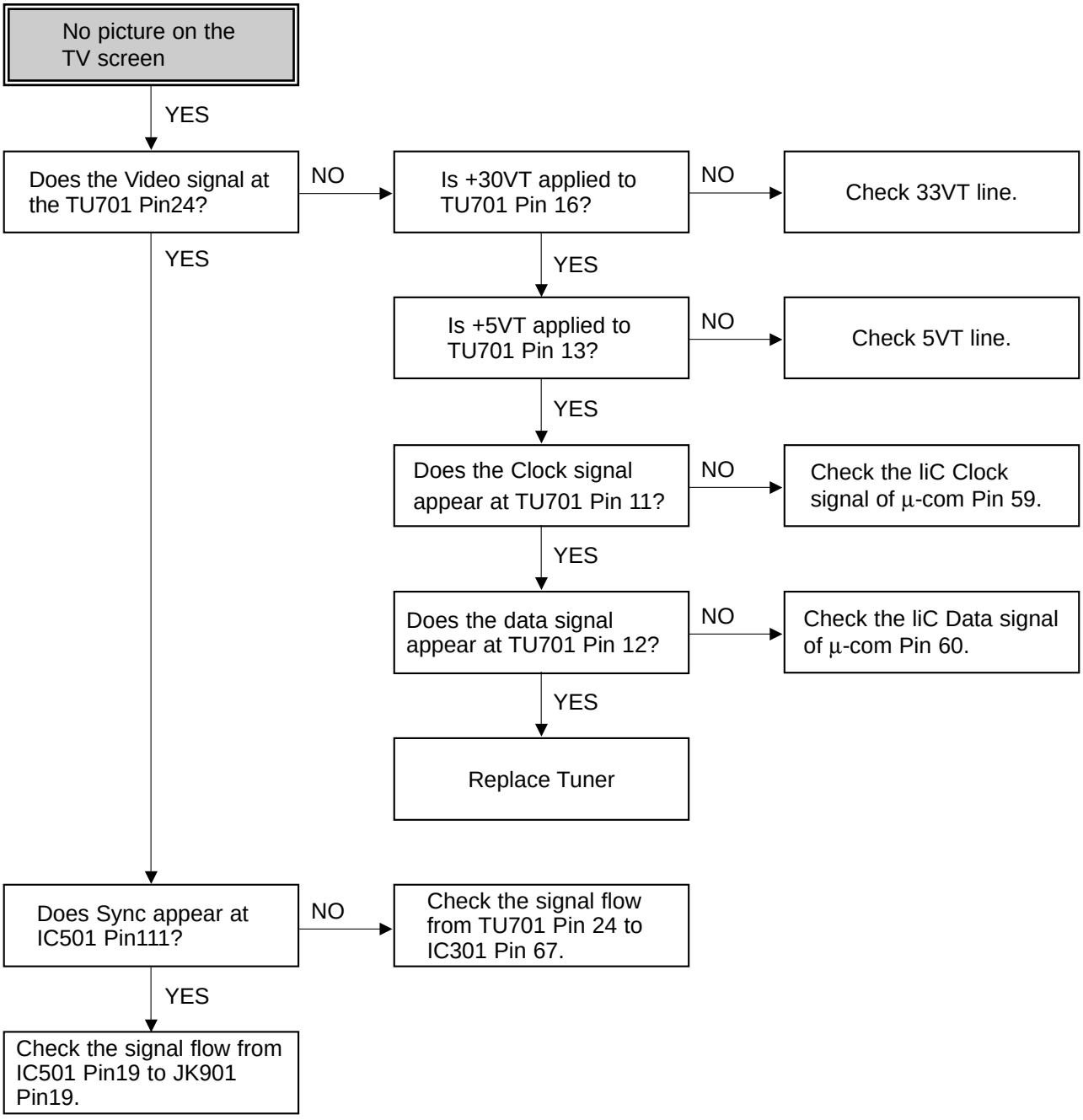

Is 5.2VT/5.4VA applied to the IC301 Pins 24, 42, 55, 72, 91.
NO
Check the line of the 5.2VT/ 5.4VA Line. (Power Circuit)
YES
Is the Color Rotary signal applied to the IC301 Pin 70?
NO
Check the Color Rotary Circuit. (IC501 pin 99)
YES
Is Color Rotary "H" about 3.4V?
NO
Check the Color Rotary level. (Check the R303)
YES
Does the Color signal appear at the IC301 Pin 25 ?
NO
Does the X301(4.43MHZ) oscillate?
NO
Replace the X301.
YES
Does the Color signal appear at the IC301 Pin 21?
NO
Check the Color Pass.
YES
Replace the IC301.
Replace the IC301.

(4) When the Video signal doesn't appear on the screen in REC Mode,

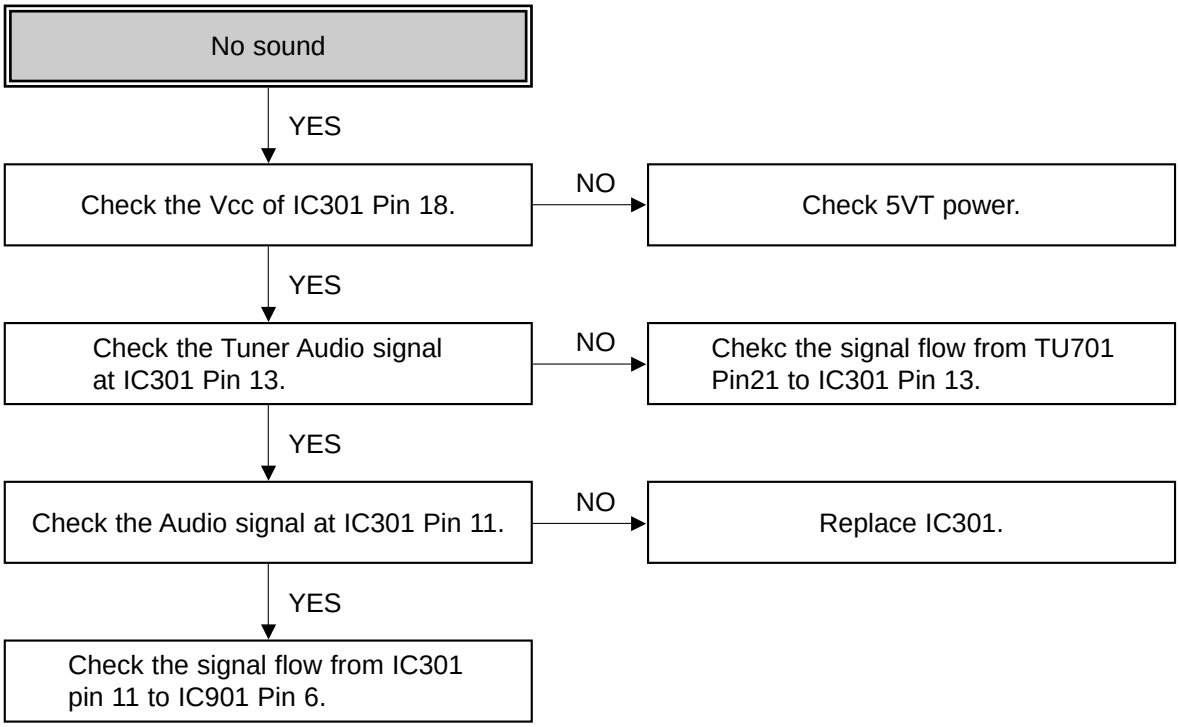

Is the EE signal normal?
NO
Check EE Mode.
YES
Is 5.2VT/5.4VA applied to the IC301 Pins 24,42,55,72,91?
NO
Check the line of the 5.2VT/ 5.4VA Line.(Power Circuit)
YES
Does PB Mdoe operate normally?
NO
Check PB Mode.
YES
Does the RF signal appear at the IC301 Pin 78?
NO
Is the REC 'H' signal (about 4V) applied to the IC301 Pin 80?
NO
Check the System of REC 'H'. (the IC501 Pin 47 / the D301)
YES
YES
Check REC Luminance Pass & Color Pass.
YES
Replace the IC301.
Does the REC RF signal appear at the IC301 Pins 88,89,94,95?
NO
Check the circuit of the IC301 Pins 85, 86.
YES
YES
Check the Drum & Drum Connector

5. Tuner/IF circuit

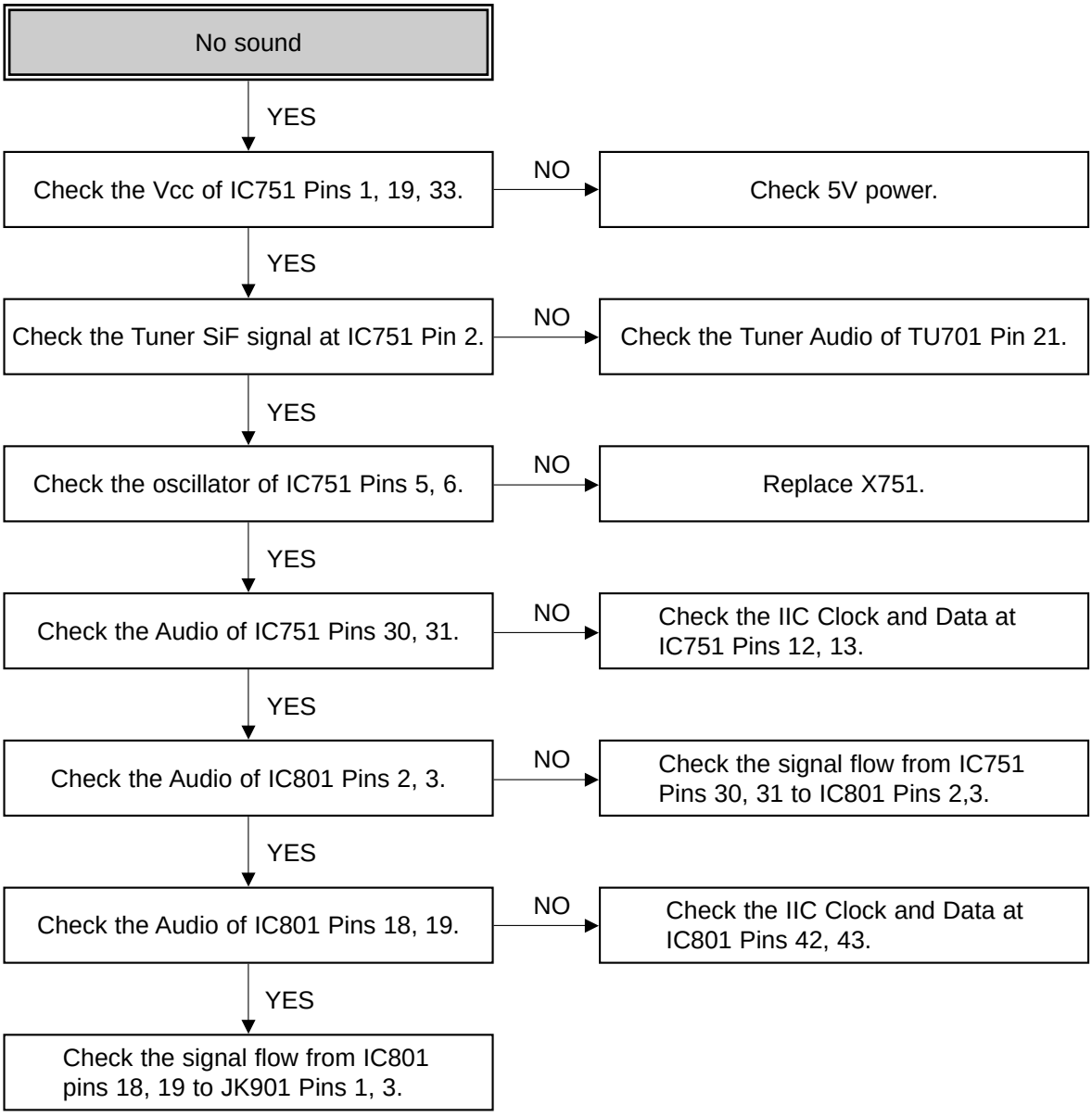
(1) No picture on the TV screen


No picture on the TV screen
YES
Does the Video signal at the TU701 Pin24?
NO
Is +30VT applied to TU701 Pin 16?
NO
Check 33VT line.
YES
YES
Is +5VT applied to TU701 Pin 13?
NO
Check 5VT line.
YES
Does the Clock signal appear at TU701 Pin 11?
NO
Check the liC Clock signal of μ-com Pin 59.
YES
Does the data signal appear at TU701 Pin 12?
NO
Check the liC Data signal of μ-com Pin 60.
YES
Replace Tuner
Does Sync appear at IC501 Pin111?
NO
Check the signal flow from TU701 Pin 24 to IC301 Pin 67.
YES
Check the signal flow from IC501 Pin19 to JK901 Pin19.

(2) No sound (Mono Model)

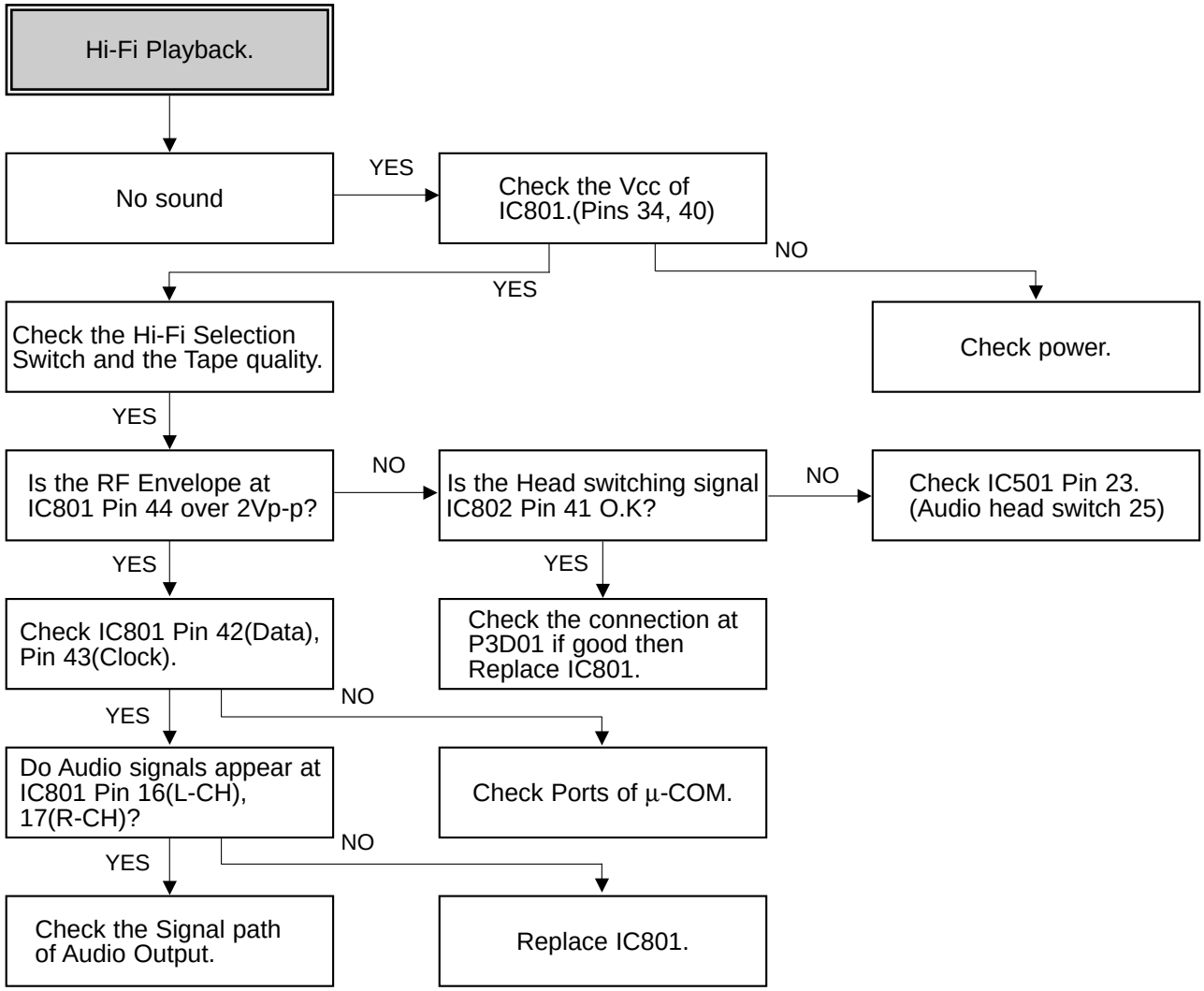

No sound
YES
Check the Vcc of IC301 Pin 18.
NO
Check 5VT power.
YES
Check the Tuner Audio signal at IC301 Pin 13.
NO
Chekc the signal flow from TU701 Pin21 to IC301 Pin 13.
YES
Check the Audio signal at IC301 Pin 11.
NO
Replace IC301.
YES
Check the signal flow from IC301 pin 11 to IC901 Pin 6.

(3) No sound (Hi-Fi Model)

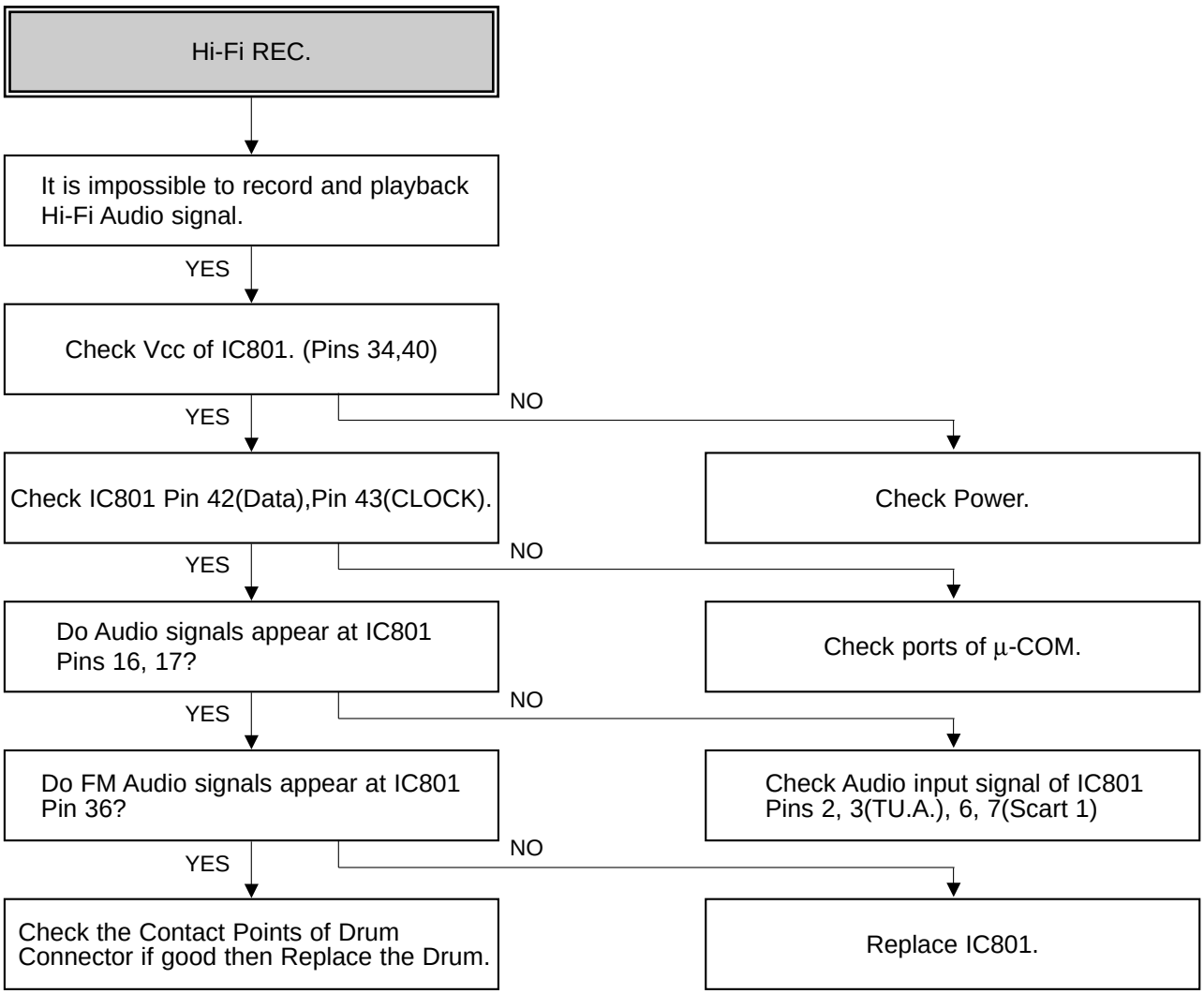

No sound
YES
Check the Vcc of IC751 Pins 1, 19, 33.
NO
Check 5V power.
YES
Check the Tuner SiF signal at IC751 Pin 2.
NO
Check the Tuner Audio of TU701 Pin 21.
YES
Check the oscillator of IC751 Pins 5, 6.
NO
Replace X751.
YES
Check the Audio of IC751 Pins 30, 31.
NO
Check the IIC Clock and Data at IC751 Pins 12, 13.
YES
Check the Audio of IC801 Pins 2, 3.
NO
Check the signal flow from IC751 Pins 30, 31 to IC801 Pins 2,3.
YES
Check the Audio of IC801 Pins 18, 19.
NO
Check the IIC Clock and Data at IC801 Pins 42, 43.
YES
Check the signal flow from IC801 pins 18, 19 to JK901 Pins 1, 3.

6. Hi-Fi Circuit (Hi-Fi Model)

A.



B.


Hi-Fi REC.
It is impossible to record and playback Hi-Fi Audio signal.
YES
Check Vcc of IC801. (Pins 34,40)
NO
YES
Check Power.
Check IC801 Pin 42(Data),Pin 43(CLOCK).
NO
YES
Check ports of μ-COM.
Do Audio signals appear at IC801 Pins 16, 17?
NO
YES
Check Audio input signal of IC801 Pins 2, 3(TU.A.), 6, 7(Scart 1)
Do FM Audio signals appear at IC801 Pin 36?
NO
YES
Replace IC801.
Check the Contact Points of Drum Connector if good then Replace the Drum.

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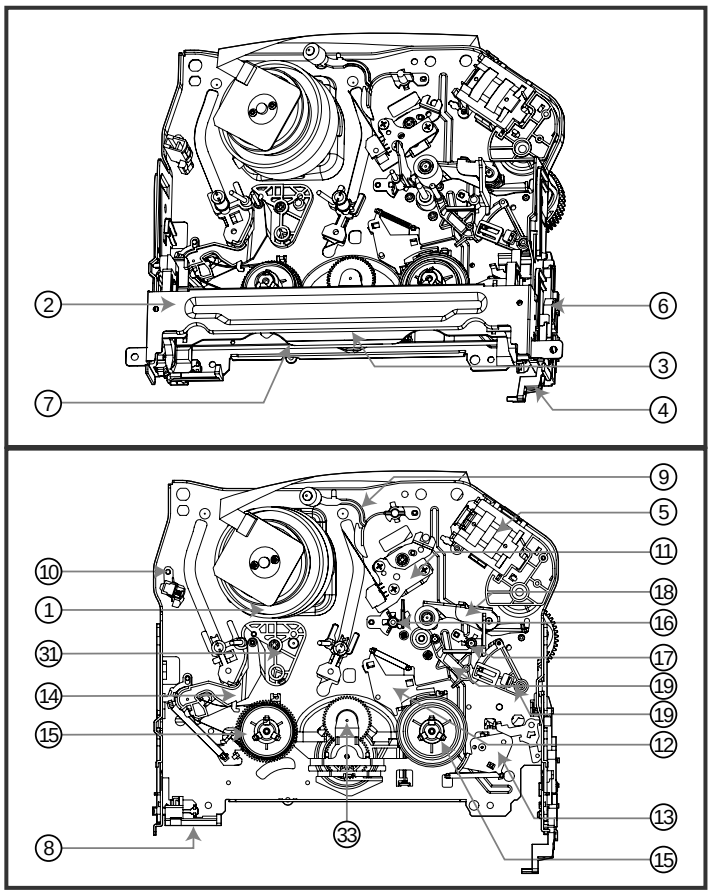
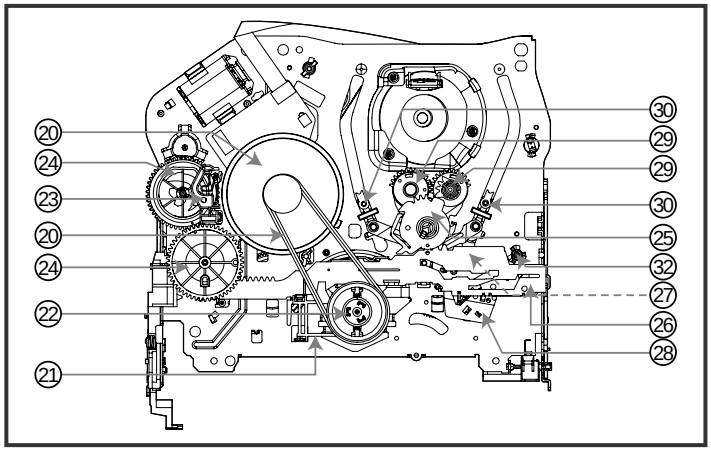
DECK MECHANISM PARTS LOCATIONS

• Top View



• Bottom View



NOTE : When reassembly perform the procedure in the reverse order.

1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Refer to Page 4-13)
2) When disassembling, the Parts for Starting No. Should be removed first.

Procedure / Starting No.		Part	Fixing Type	Figure	View
	1	Drum Assembly	3 Screw	A-1	T
	2	Plate Top	2 Hook	A-2	T
2	3	Holder Assembly CST	Chassis Hole	A-2	T
2	4	Opener Door	Chassis Hole	A-2	T
	5	Bracket Assembly L/D Motor	3 Hook	A-2	T
2,3,4	6	Gear Assembly Rack F/L	1 Hook, Chassis Hole	A-2	T
2,3,4,6	7	Arm Assembly F/L	Chassis Hole	A-2	T
	8	Lever Assembly S/W	1 Hook	A-2	T
	9	Arm Assembly Cleaner	Chassis Embossing	A-3	T
	10	Head F/E	Chassis Embossing	A-3	T
	11	Base Assembly A/C Head	1 Screw	A-3	T
2,3	12	Brake Assembly T	1 Hook	A-4	T
2,3	13	Brake Assembly RS	1 Hook	A-4	T
2,3	14	Arm Assembly Tension	2 Hook	A-4	T
2,3,12,13, 14	15	Reel S/Reel T		A-4	T
	16	Base Assembly P4	Chassis Embossing	A-5	T
	17	Opener Lid	Chassis Embossing	A-5	T
17	18	Arm Assembly Pinch	Shaft	A-5	T
17	19	Lever T/Up / Arm T/Up	1 Hook	A-5	T
17,18	20	Belt Capstan/Motor Capstan	3 Screw	A-6	B
	21	Lever F/R	Locking Tab	A-6	B
20, 21	22	Clutch Assembly D35	Washer	A-6	B
	23	Brake Assembly Capstan	Locking Tab	A-6	B
	24	Gear Drive/Gear Cam	Washer/Hook	A-7	B
	25	Gear Sector	1 Hook	A-7	B
20,21,23, 24,25	26	Plate Slider	Shaft Guide	A-7	B
20,21,23, 24,25,26	27	Lever Tension	1 Hook	A-7	B
2,3,14,20, 21,25,23, 24,26	28	Lever Spring	Locking Tab	A7	B
25	29	Gear Assembly P2/Gear Assembly P3	Boss	A-8	B
2,3,14,25, 29	30	Base Assembly P2/Base Assembly P3	Chassis Slot	A-8	B
2,3,14,25, 29	31	Base Loading	1 Screw	A-9	T
2,3,14	32	Base Tension	Chassis Embossing	A-9	B
2,3,20,21, 22	33	Arm Assembly Idler	Locking Tab	A-9	T

T:Top, B:Bottom

DECK MECHANISM DISASSEMBLY

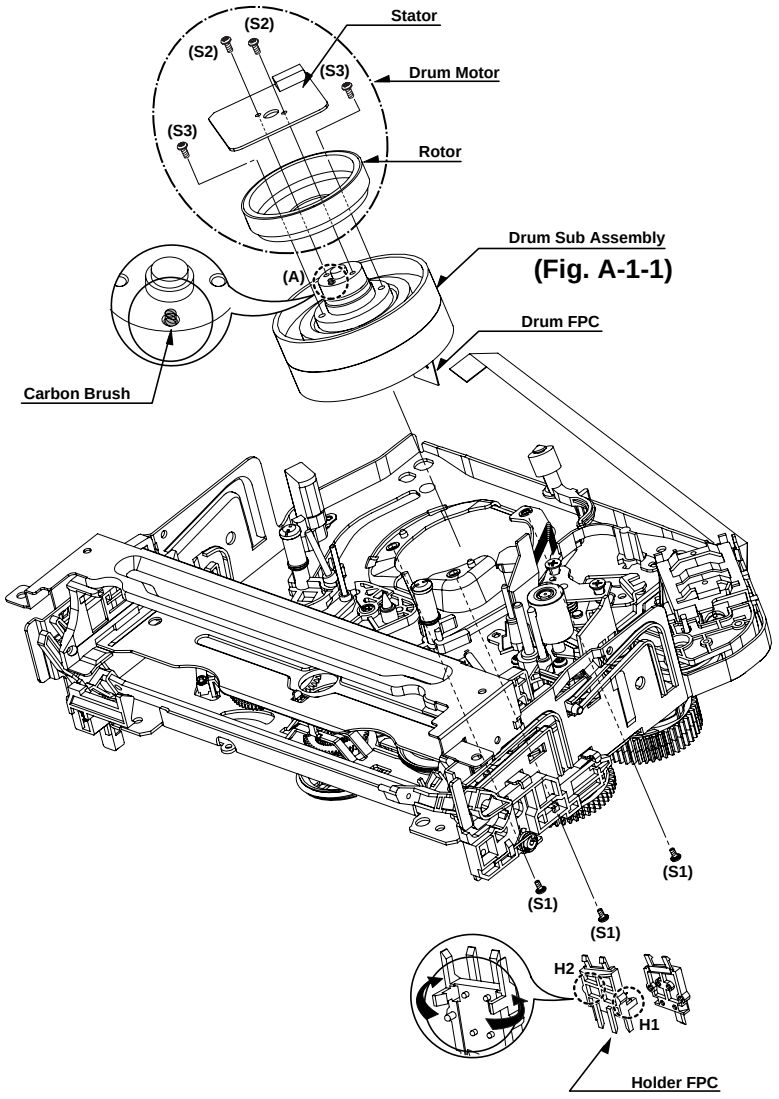


Fig. A-1

1. Drum Assembly (Fig. A-1-1)

1) Unplug the Drum FPC Connector.
2) Remove three Screws(S1) on bottom side and separate the Drum assembly.
3) Unhook (H1), (H2) and separate the Holder FPC and Cap FPC.

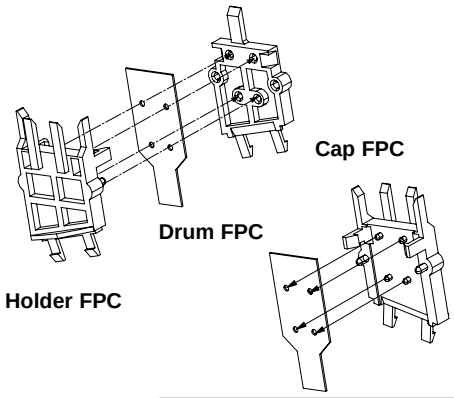
1-1. Drum Motor

1) Remove two Screws(S2) and disassemble the Stator of the Drum Motor.
2) Remove two Screws(S3) and separate the Rotor of the Drum Motor from the Drum Sub assembly.

NOTE

When reassembling, confirm (A) portion of the Drum Sub assembly whether the Carbon Brush is in there or not.

(Fig. B-1)



DECK MECHANISM DISASSEMBLY

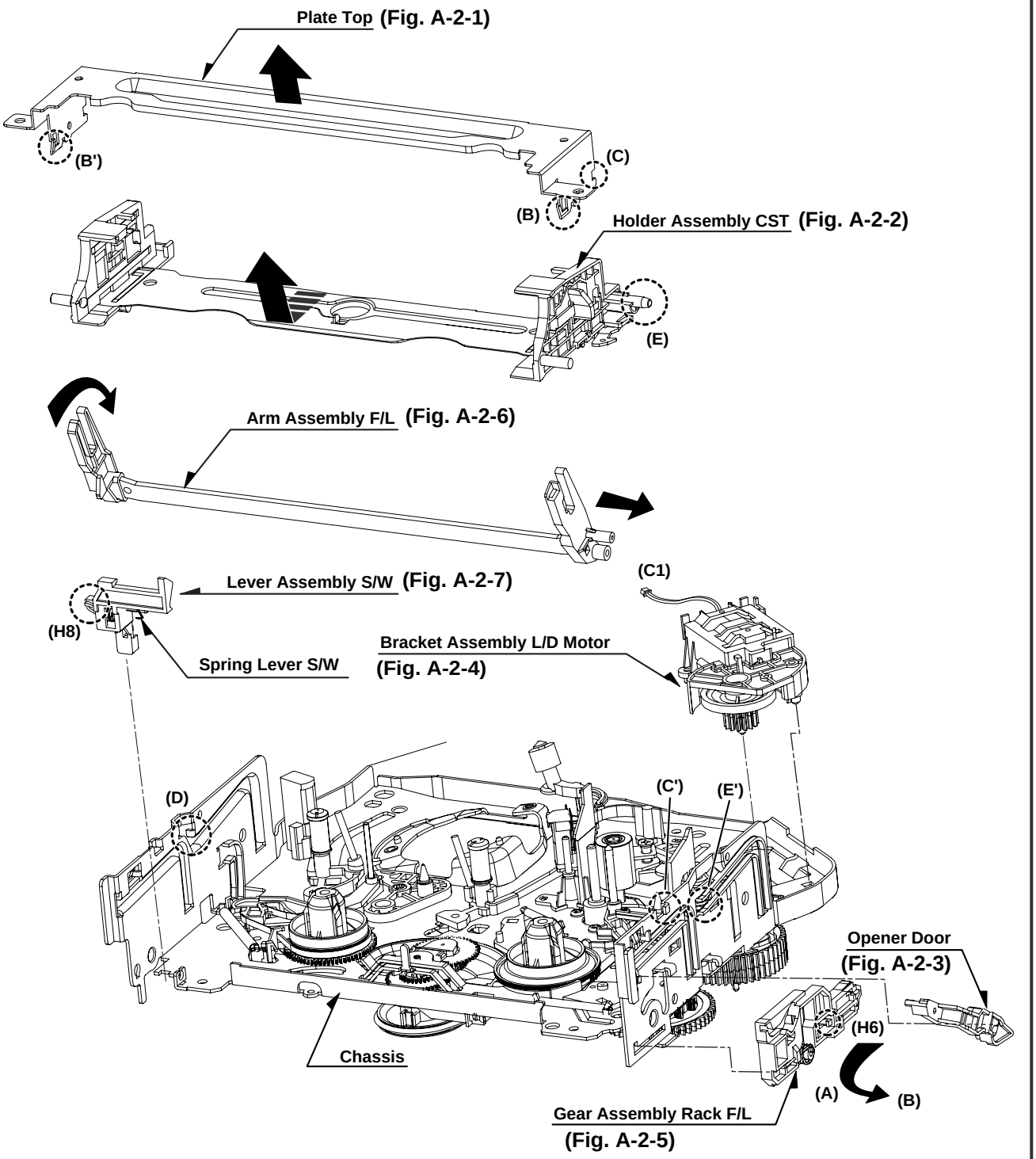


Fig. A-2

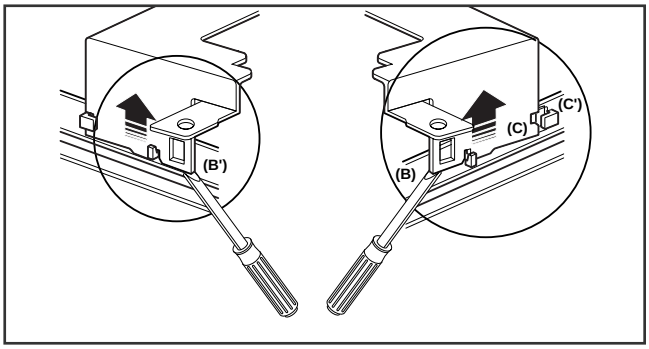
DECK MECHANISM DISASSEMBLY

2. Plate Top (Fig. A-2-1)

1) Pull the (B) portion of the Plate Top back in direction of arrow and separate the right side of it.
2) pull the (B') portion of the Plate Top back in direction of arrow and separate the left side of it.
   (Used tools : (-) type driver, anything tool with sharp point or flat point.)

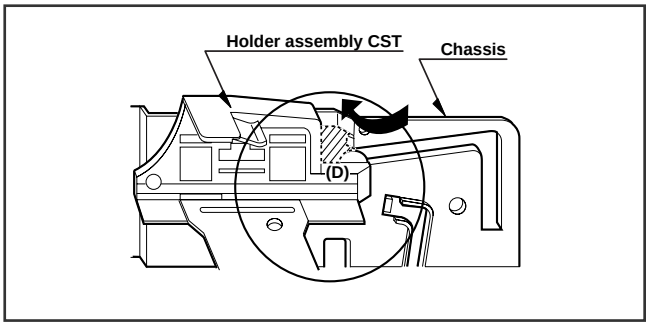
NOTE

(1) When reassembling, push the Plate Top after alignment the two position(C), (C') as below Fig.



3. Holder Assembly CST (Fig.A-2-2)

1) Move the Holder Assembly CST in direction of arrow and separate the left side of it first through the (D) position of the Chassis.



2) Disassemble the right side of the Holder Assembly CST from each guided hole of the Chassis.

NOTE

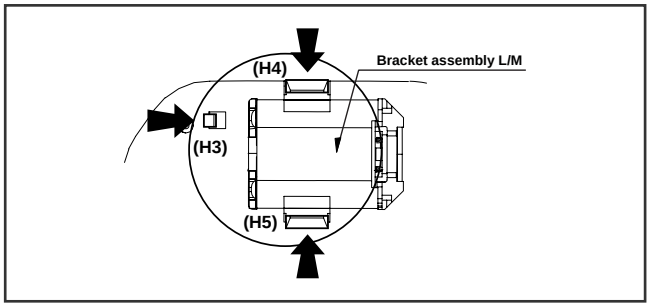
When reassembling, insert the (E) part of the Holder Assembly CST in the (E') hole of the Chassis first and assemble the left side of it.

4. Opener Door (Figure. A-2-3)

1) Turn the Opener Door clockwise and remove it through the guide hole of the Chassis.

5. Bracket Assembly L/D Motor (Fig. A-2-4)

1) Unplug the Connector(C1).
2) Unhook three Hooks(H3, H4, H5) on bottom side of the Chassis, lift up the Bracket Assembly L/M and disassemble the Bracket Assembly L/D Motor.

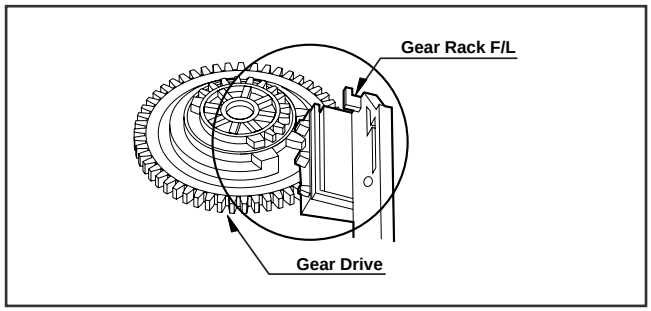


6. Gear Assembly Rack F/L (Fig. A-2-5)

1) Move the Gear Assembly Rack F/L in direction of arrow(A) and unhook the Hook(H6) pulling back in front.
2) Separate the Gear Rack F/L in direction of arrow(B).

NOTE

When reassembling, align the gear part of the Gear Assembly Rack F/L with the Gear Drive as below Fig.

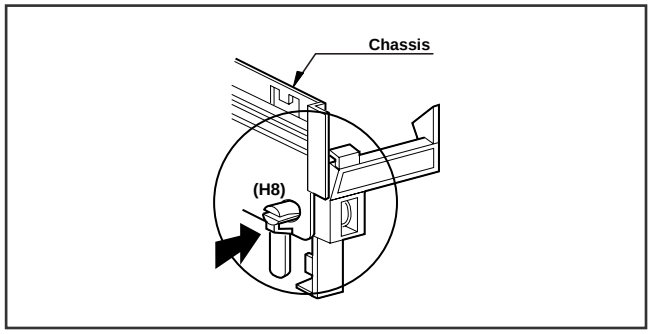


7. Arm Assembly F/L (Fig. A-2-6)

1) Move the Arm Assembly F/L in direction of arrow and separate the left side of it first.
2) Disassemble the Arm Assembly F/L from each guided hole of the Chassis.

8. Lever Assembly S/W(Fig. A-2-7)

1) Unhook the Hook(H8) in the left side of the Chassis and remove the Lever Assembly S/W.



DECK MECHANISM DISASSEMBLY

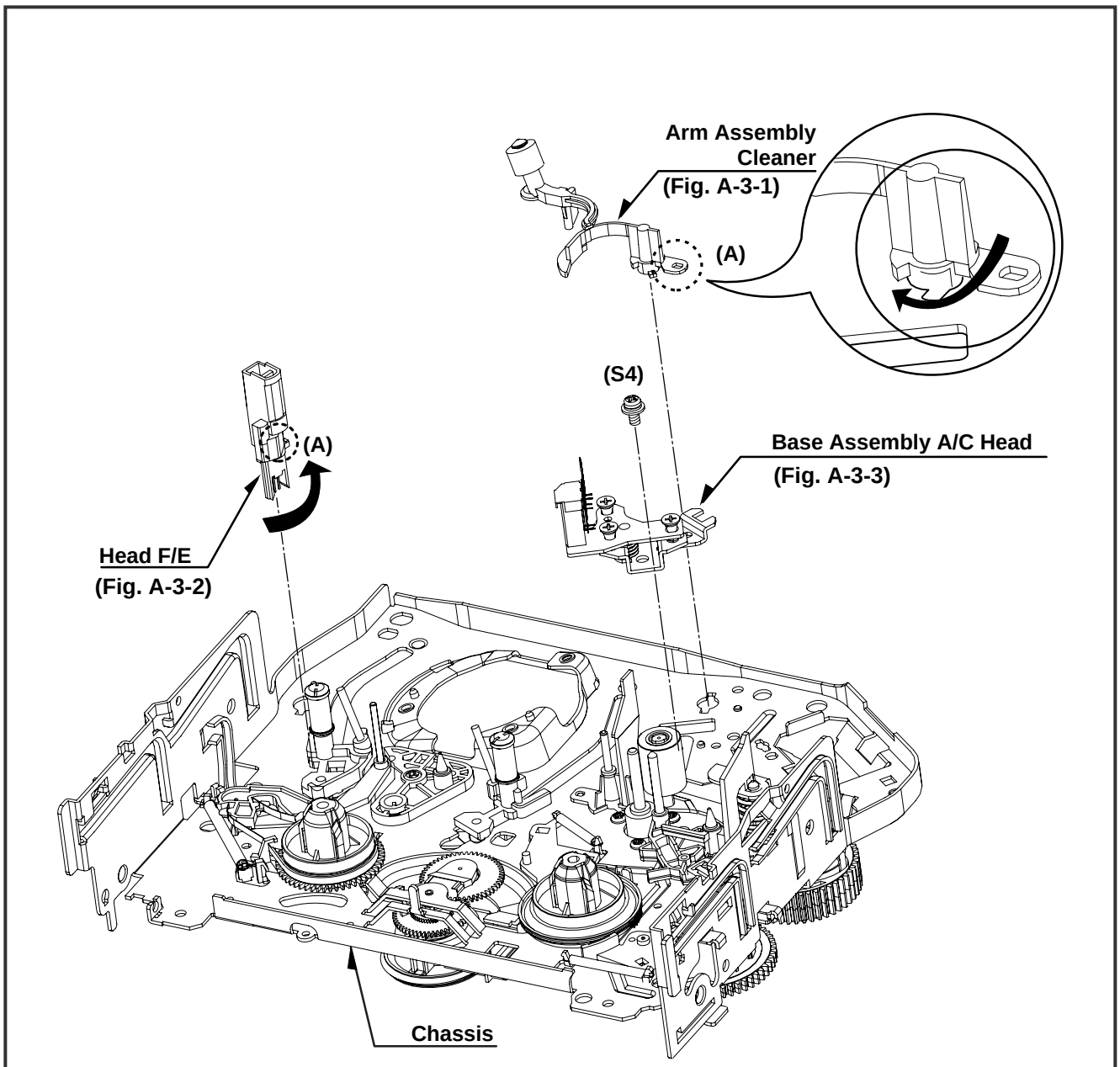


Fig. A-3

9. Arm Assembly Cleaner (Fig. A-3-1)

1) Breakaway the (A) portion as Fig. A-3-1 from the embossing of the Chassis, turn the Arm assembly Cleaner to clockwise direction and lift it up.

10. Head F/E (Fig. A-3-2)

1) Breakaway the (A) portion of the Head F/E from the embossing of the Chassis, turn it to counterclockwise direction and lift it up.

11. Base Assembly A/C Head (Fig. A-3-3)

1) Remove the Screw(S4) and lift the Base Assembly A/C Head up.

DECK MECHANISM DISASSEMBLY

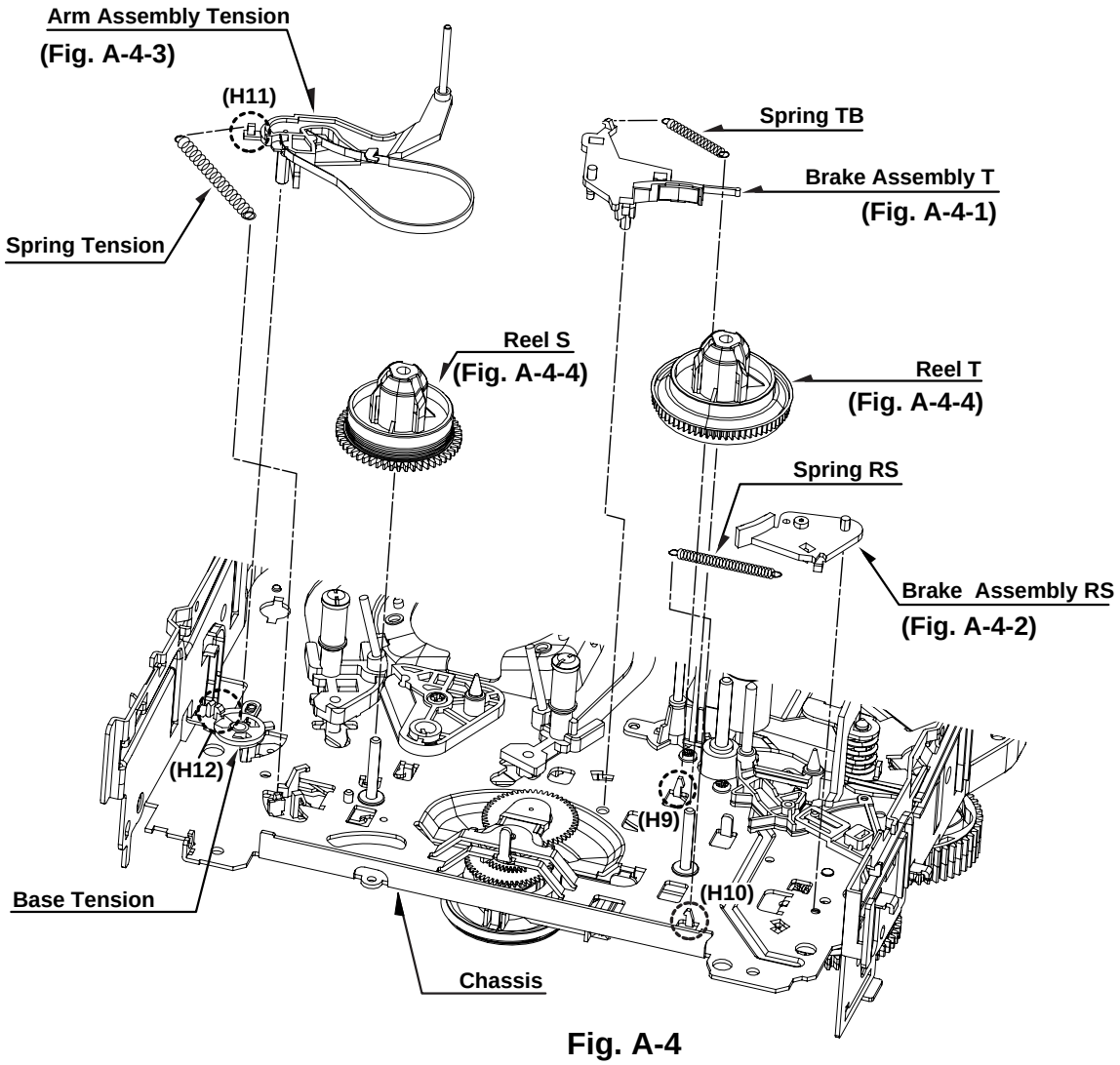


Fig. A-4

12. Brake Assembly T (Fig. A-4-1)

1) Unhook the Spring TB from the Hook(H9) of the Chassis.
2) Lift the Brake Assembly T up.

13. Brake Assembly RS (Fig. A-4-2)

1) Unhook the Spring RS from the Hook(H10) of the Chassis.
2) Lift the Brake Assembly T up.

14. Arm Assembly Tension (Fig. A-4-3)

1) Unhook the Spring Tension from the Hook(H11) of the Arm Assembly Tension.
2) Unhook the Hook(H12) of the Base Tension and lift the Arm Assembly Tension up.

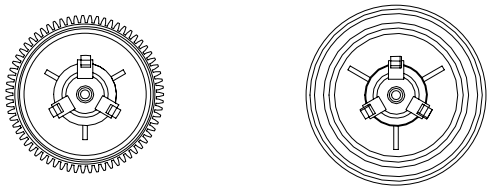
NOTE

Difference for Springs

	Spring TB
	Spring RS **Color (Black)**
	Spring Tension

15. Reel S / Reel T (Fig. A-4-4)

1) Difference for Reel S / Reel T



Reel S **R eel T**

DECK MECHANISM DISASSEMBLY

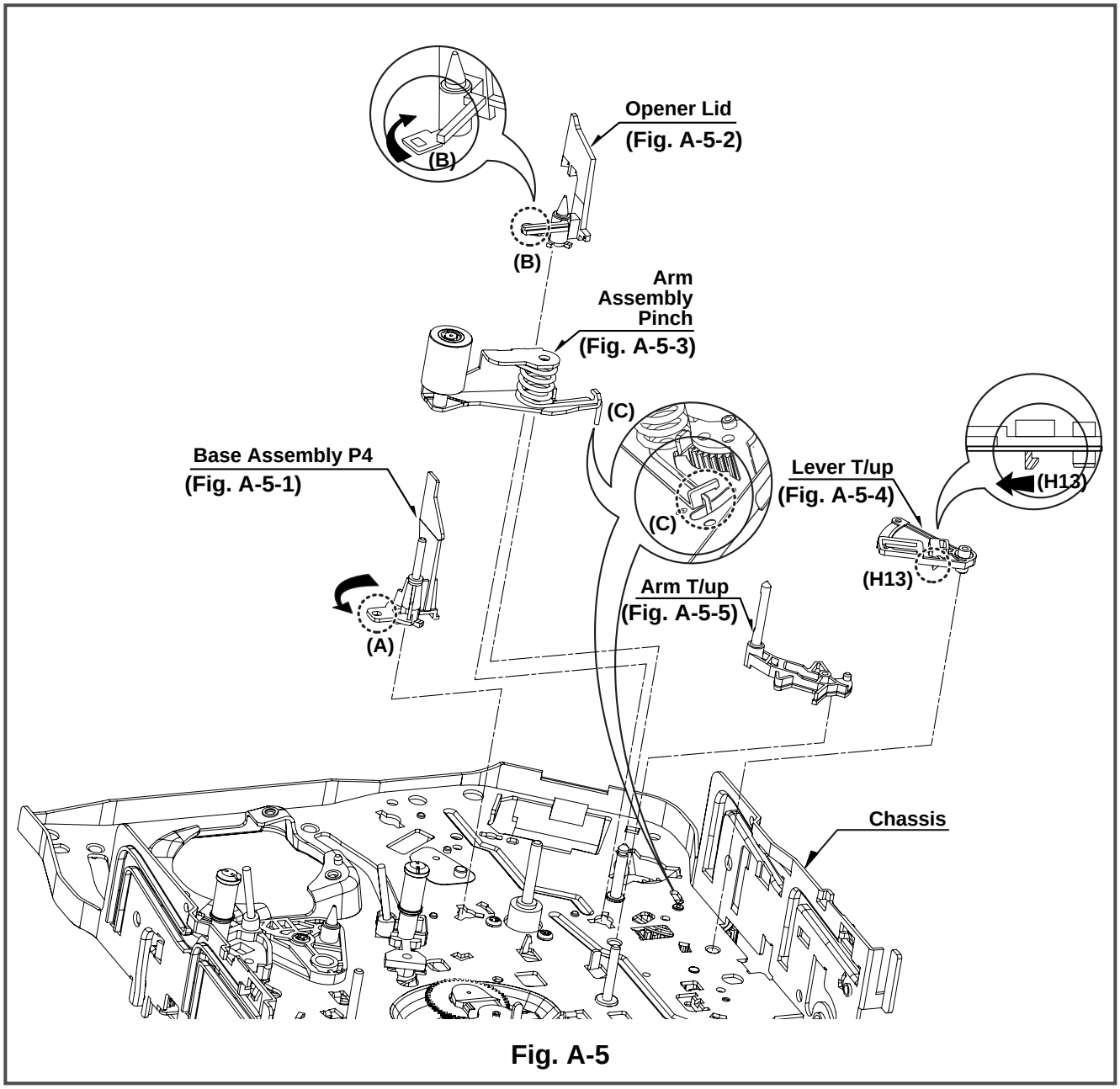


Fig. A-5

16. Base Assembly P4 (Fig. A-5-1)

1) Breakaway the (A) portion of the Base Assembly P4 from the embossing of the Chassis.
2) Turn the Base Assembly P4 to counterclockwise direction and lift it up.

17. Opener Lid (Fig. A-5-2)

1) Breakaway the (B) portion of the Opener Lid from the embossing of the Chassis.
2) Turn the Opener Lid to clockwise direction and lift it up.

18. Arm Assembly Pinch (Fig. A-5-3)

1) Lift the Arm Assembly Pinch up.

NOTE

When reassembling, confirm the (C) portion of the Arm Assembly Pinch is inserted to the Chassis hole correctly as Fig.

19. Lever T/up (Fig. A-5-4)/ Arm T/up (Fig. A-5-5)

1) Unhook the Hook(H13) of the bottom Chassis and lift the Lever T/up up.
2) Lift the Arm T/up up.

DECK MECHANISM DISASSEMBLY

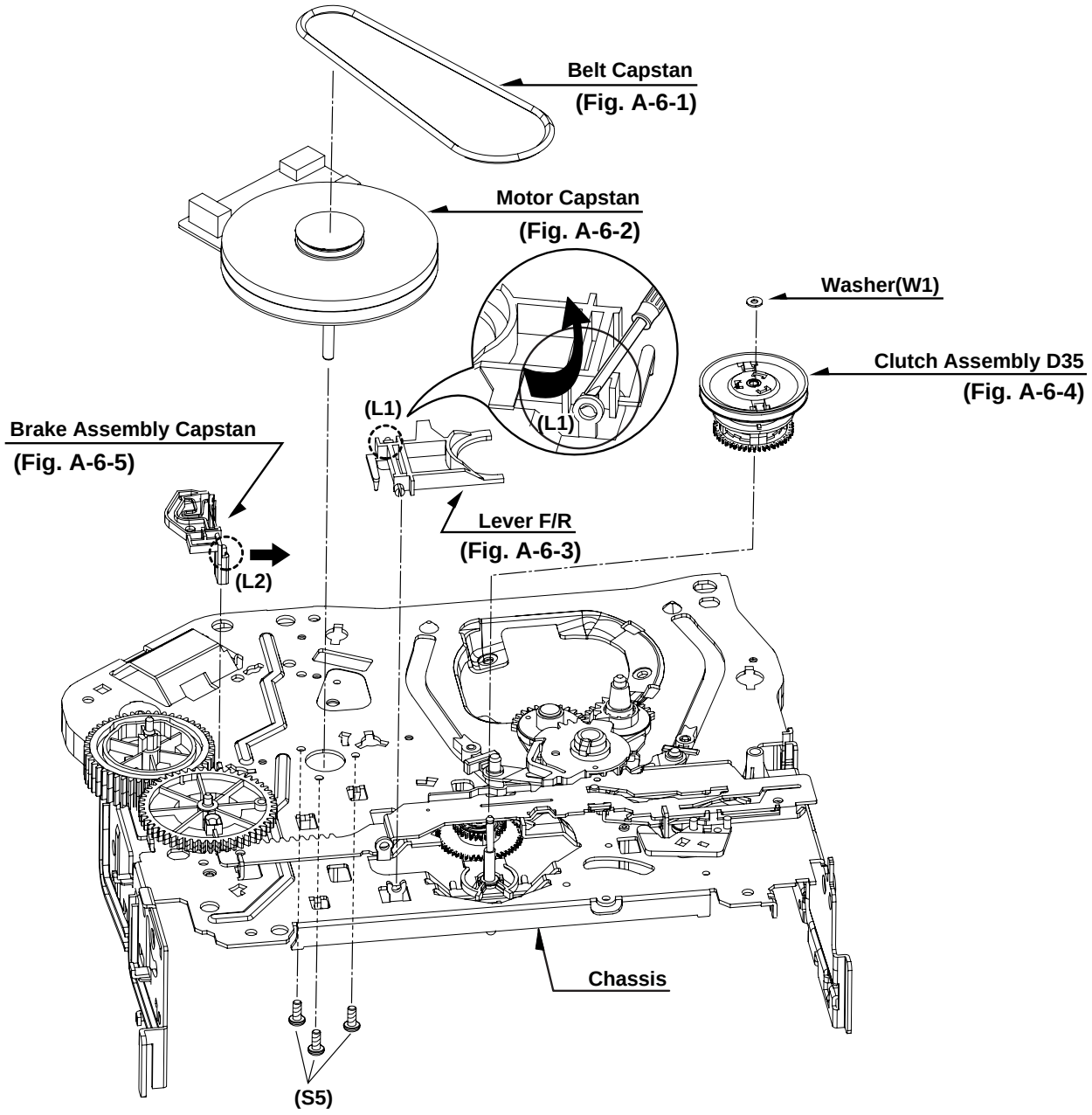


Fig. A-6

20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

1) Remove the Belt Capstan.
2) Remove the three Screws(S5) on bottom Chassis and lift the Motor Capstan up.

21. Lever F/R (Fig. A-6-3)

1) Unlock the Locking Tab(L1) as Fig. A-6-3 and lift the Lever F/R up.

22. Clutch Assembly D35 (Fig. A-6-4)

1) Remove the Washer(W1) and lift the Clutch Assembly D35 up.

23. Brake Assembly Capstan (Fig. A-6-5)

1) Pull the Locking Tab(L2) back in direction of arrow and lift it up.

DECK MECHANISM DISASSEMBLY

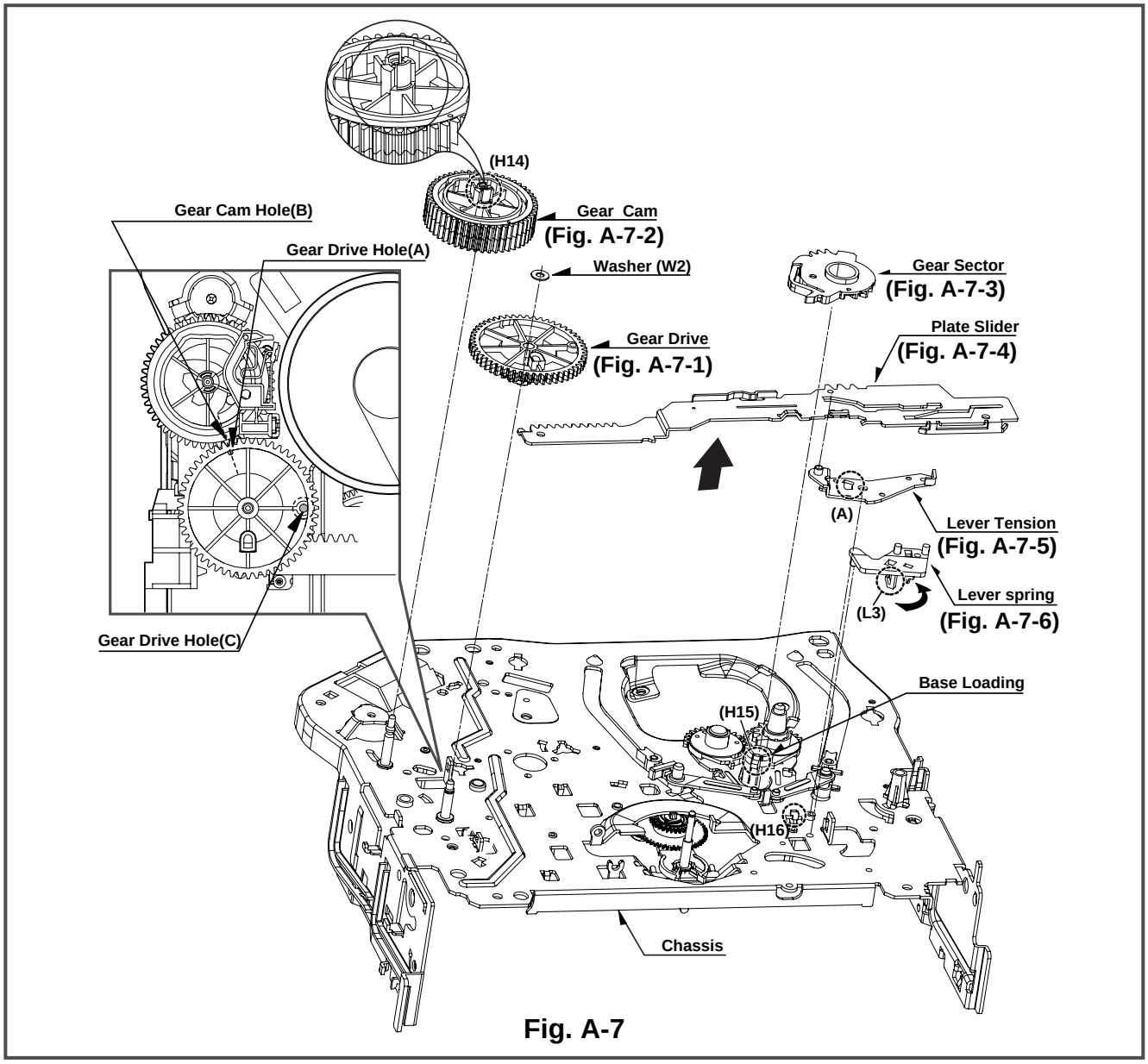


Fig. A-7

24. Gear Drive (Fig. A-7-1)/ Gear Cam (Fig. A-7-2)

1) Remove the Washer(W2) and lift the Gear Drive up.
2) Unhook the Hook(H14) of the Gear Cam and lift the Gear Cam up.

NOTE

When reassembling, align the Gear Drive Hole(A) and the Gear Cam Hole(B) in a straight line after the Gear Drive Hole(C) is aligned with the Chassis Hole as Fig.

25. Gear Sector (Fig. A-7-3)

1) Unhook the Hook(H15) of the Base Loading on bottom Chassis and lift the Gear Sector up.

26. Plate Slider (Fig. A-7-4)

1) Just lift the Plate Slider up.

27. Lever Tension (Fig. A-7-5)

1) Unhook the (A) portion of the Lever Tension from the Hook(H16) of the Chassis.
2) Turn the Lever Tension to counterclockwise direction and lift it up.

28. Lever Spring (Fig. A-7-6)

1) Unlock the Locking Tab(L3) of the bottom Chassis and lift the Lever Spring up.

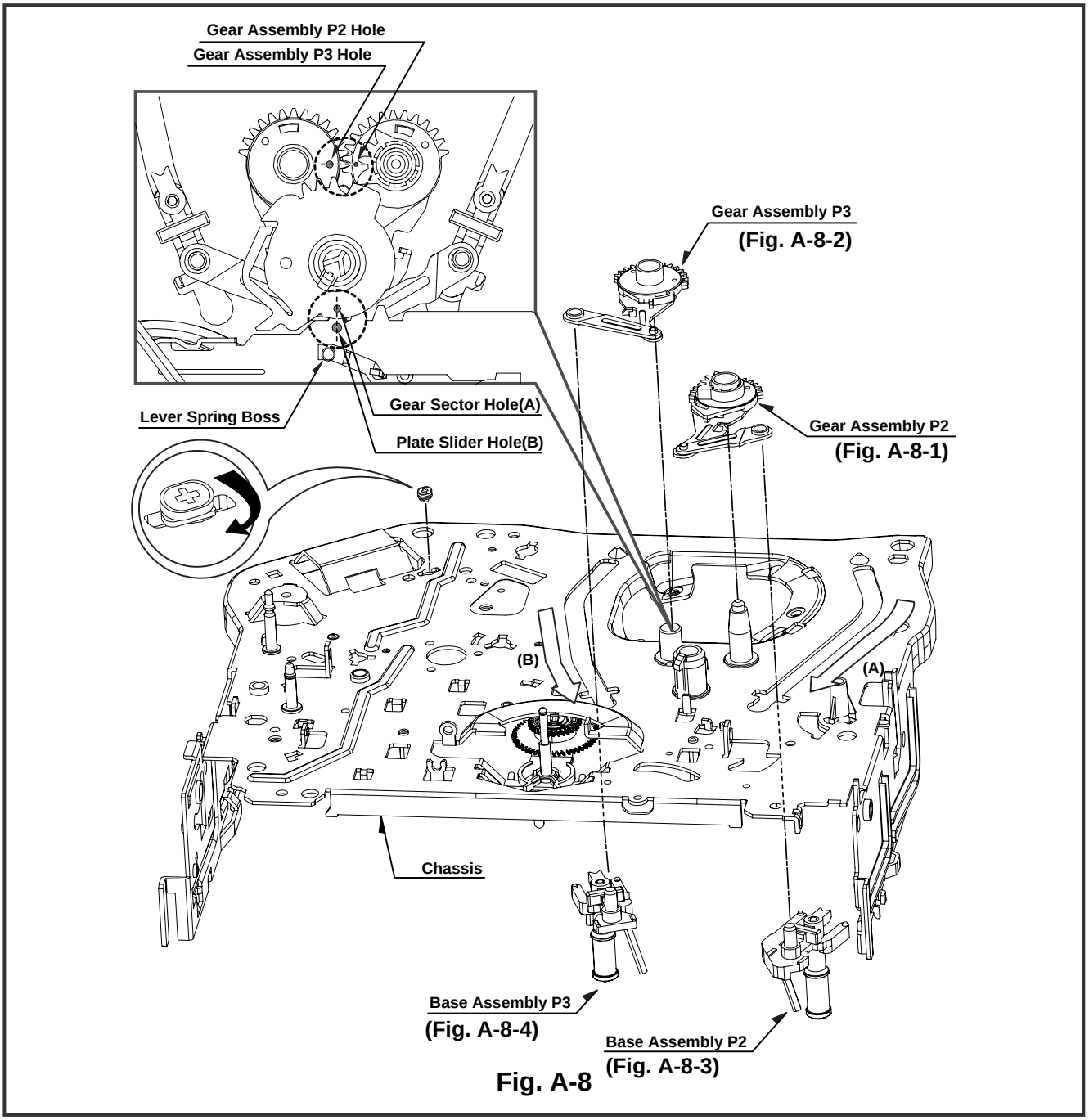


Fig. A-8

29. Gear Assembly P2 (Fig. A-8-1)/ Gear Assembly P3 (Fig. A-8-2)

1) Just lift the Gear Assembly P2 up.
2) Just lift the Gear Assembly P3 up.

NOTE

When reassembling, align the two holes of the Gear Assembly P2 and P3 in a straight line after confirmation whether the Gear Sector Hole(A) and the Plate Slider Hole(B) are aligned or not as Fig.

30. Base Assembly P2 (Fig. A-8-3)/ Base Assembly P3 (Fig. A-8-4)

1) Move the Base Assembly P2 in direction of arrow(A) along the guide hole of the Chassis and disassemble it on bottom side.
2) Move the Base Assembly P3 in direction of arrow(B) along the guide hole of the Chassis and disassemble it on bottom side.

DECK MECHANISM DISASSEMBLY

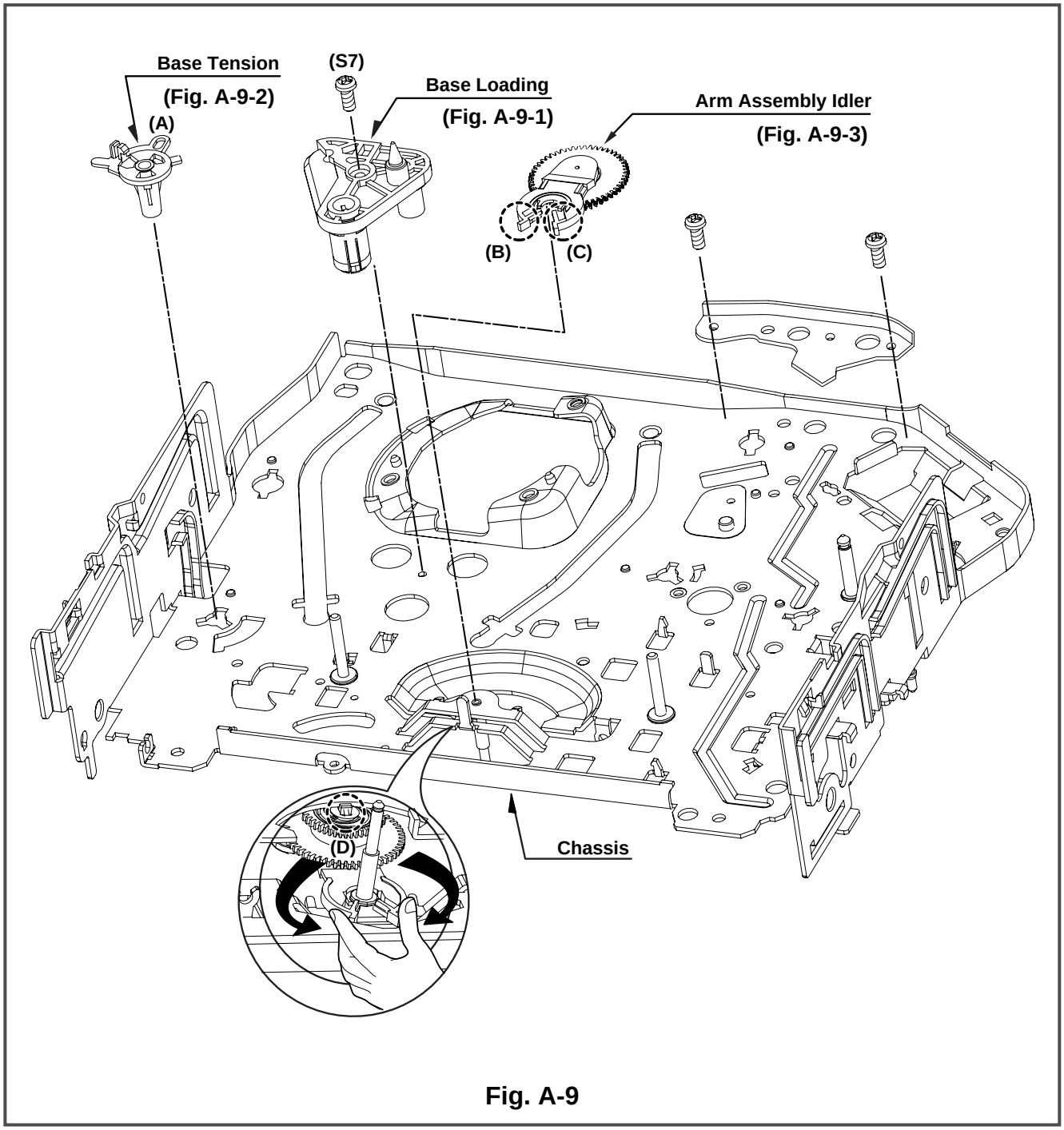


Fig. A-9

31. Base Loading (Fig. A-9-1)

1) Remove the Screw(S7).
2) Lift the Base Loading up.

32. Base Tension (Fig. A-9-2)

1) Breakaway the (A) portion of the Base Tension from the embossing of the Chassis.
2) Turn the Base Tension to counterclockwise direction and lift it up.

33. Arm Assembly Idler (Fig. A-9-3)

1) Make narrower the two parts, (B) and (C), as Fig. A-9-3.
2) Lift the Arm assembly Idler up.

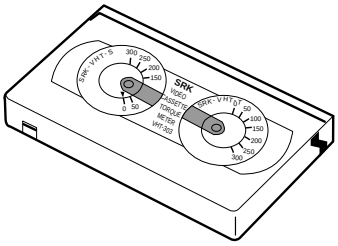
NOTE

When disassembling, be careful not to be caught the (D) part by the Chassis as Fig.

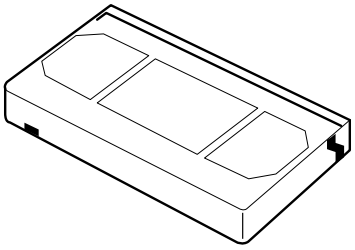
DECK MECHANISM ADJUSTMENT

• Tools and Fixfures for Service

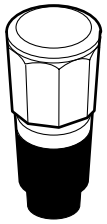
1. Cassette Torque Meter
PUJ42881



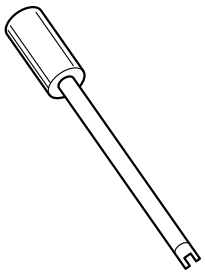
2. Alignment Tape
NTSC:MHP
PAL:MHPE



3. Torque Gauge
PUJ48075-2



4. Post Height Adjusting Driver (Roller driver)
PTU94002



DECK MECHANISM ADJUSTMENT

1. Mechanism Alignment Position Check

Purpose:To determine if the Mechanism is in the correct position, when a Tape is ejected.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Check Point
• Blank tape	• Eject Mode (with Cassette ejected)	• Mechanism and Mode Switch Position

1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
3) IF not, rotate the Shaft of the Loading Motor to either clockwise or counterclockwise until the alignment is as below Fig. C-2.
4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

CHECK DIAGRAM

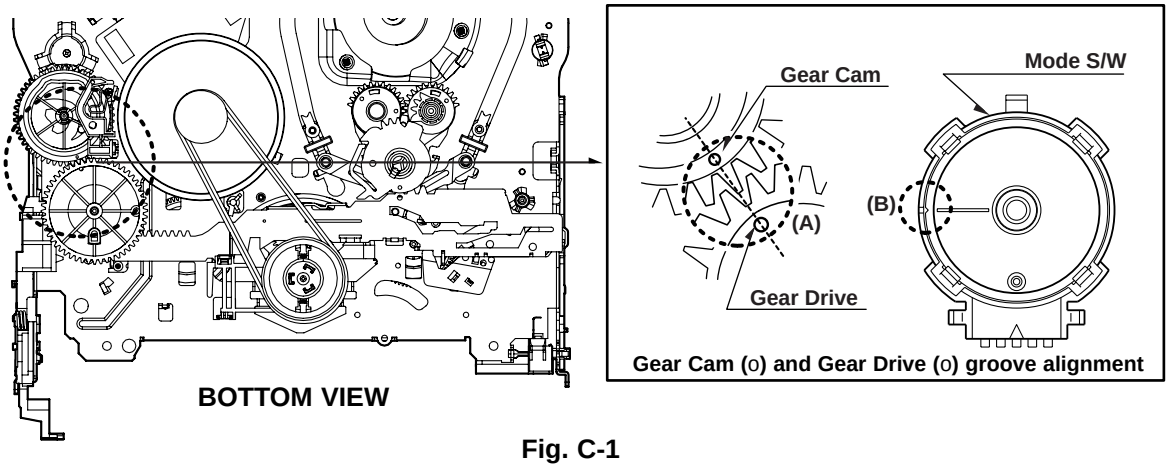


Fig. C-1

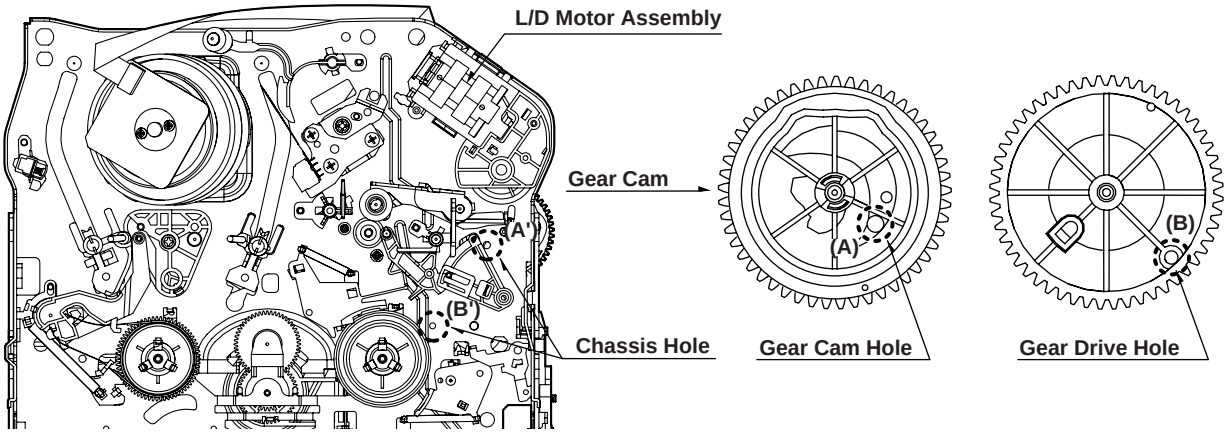


Fig. C-2

DECK MECHANISM ADJUSTMENT

2. Preparation for Adjustment (To set the Deck Mechanism of the loading state without inserting a cassette tape).

1) Unplug the power cord from the AC outlet.
2) Disassemble the Top Cover and Plate Assembly Top.
3) Plug the power cord into the AC outlet.
4) Turn the power S/W on and push the Lever Stopper of the Holder Assembly CST to the back for loading the cassette without tape.
Cover the holes of the End Sensors at the both sides of the Chassis to prevent a light leak.
Then the Deck Mechanism drives to the Stop Mode.
In this case, the Deck Mechanism can accept inputs of each mode, however the Rewind and Review operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

3. Checking Torque

Purpose: To insure smooth transport of the tape during each mode of operation.
If the tape transport is abnormal, then check the torque as indicated by the chart below.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Checking Method
• Torque Gauge(600g/cm ATG) • Torque Gauge Adaptor • Cassette Torque Meter	• Play (FF) or Review (REW) Mode	• Perform each Deck Mechanism mode without inserting a cassette tape(Refer to above No.2 Preparation for Adjustment). • Read the measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2). • Attach the Torque Gauge Adaptor to the Torque Gauge and then read the value of it(Fig. C-3-1).

Item	Mode	Test Equipment	Measurement Reel	Measurement Values
Fast Forward Torque	Fast Forward	Cassette Torque Gauge	Take-Up Reel	More than 400g/cm
Rewind Torque	Rewind	Cassette Torque Gauge	Supply Reel	More than 400g/cm
Play Take-Up Torque	Play	Cassette Torque Meter	Take-Up Reel	40~100g/cm
Review Torque	Review	Cassette Torque Meter	Supply Reel	120~210g/cm

NOTE:

The values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

• Torque Gauge (600g.cm ATG)

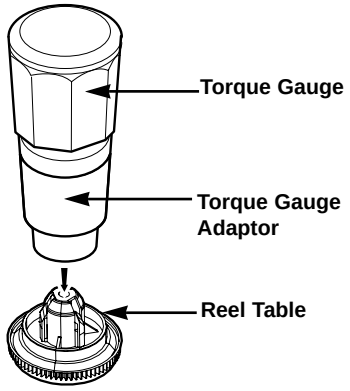


Fig. C-3-1

NOTE:

The torque reading to measure occurs when the tape abruptly changes direction from Fast Forward to Rewind Mode, when quick braking is applied to both Reels.

• Cassette Torque Meter

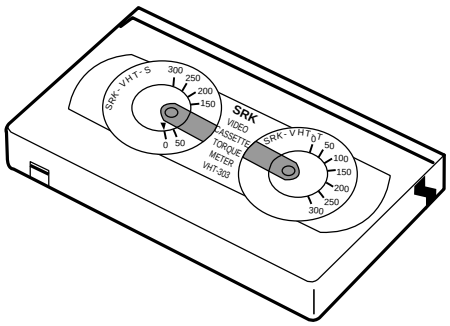


Fig. C-3-2

DECK MECHANISM ADJUSTMENT

4.Guide Roller Height Adjustment

Purpose: To regulate the height of the tape so that the bottom of the tape runs along the tape guide line on the Lower Drum.

4-1. Preliminary Adjustment

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Post Height Adjusting Driver	• Play or Review Mode	• Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers.

Adjustment Procedure

1) Confirm if the tape runs along the tape guide line of the Lower Drum.
2) If the tape runs the bottom of the guide line, turn the Guide Roller Height Adjustment Screw to clockwise direction.
3) If it runs the top, turn to counterclockwise direction.
4) Adjust the height of the Guide Roller to be guided to the guide line of the Lower Drum from the starting and ending point of the Drum.

ADJUSTMENT DIAGRAM

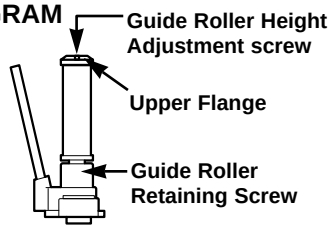


Fig. C-4-1

4-2. Precise Adjustment

Test Equipment/Fixture	Test Equipment Connection Points	Test Conditions VCR(VCP) State	Adjustment Point
• Oscilloscope • Alignment Tape • Post Height Adjusting Driver	• CH-1:PB RF Envelope • CH-2:NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Point • RF Envelope Output Point	• Play an Alignment Tape	• Guide Roller Height Adjustment Screws

Adjustment Procedure

1) Play an Alignment Tape after connecting the probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point.
2) Tracking Control(in PB Mode) : Center Position(When this adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum).
3) Height Adjustment Screw : Flatten the RF waveform. (Fig. C-4-2)
4) Turn(Move) the Tracking Control(in PB Mode) clockwise and counterclockwise.(Fig. C-4-3)
5) Check that any drop of RF Output is uniform at the start and end of the waveform.

NOTE

If the adjustment is excessive or insufficient the tape will jam or fold.

Waveform Diagrams

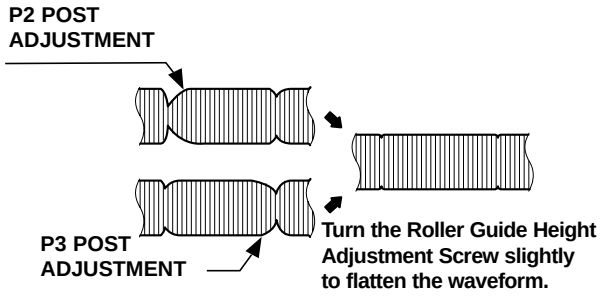


Fig. C-4-2

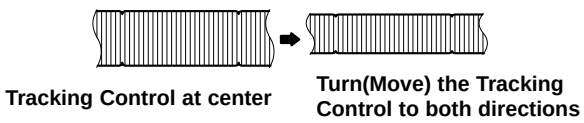
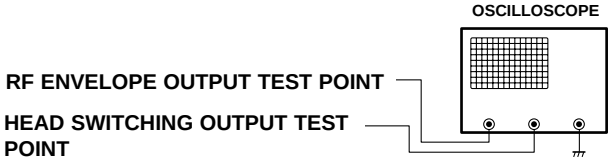


Fig. C-4-3

Connection Diagram



DECK MECHANISM ADJUSTMENT

5. Audio/Control (A/C) Head Adjustment

Purpose: To insure that the tape passes accurately over the Audio and Control Tracks in exact alignment of the both Record and Playback Modes.

5-1. Preliminary Adjustment (Height and Tilt Adjustment)
Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.

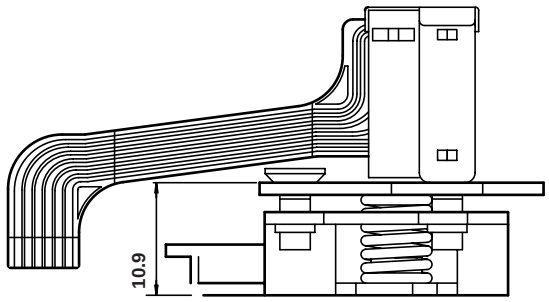
Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Blank Tape • Screw Driver(+) Type 5mm	• Play the blank tape	• Tilt Adjustment Screw(C) • Height Adjustment Screw(B) • Azimuth Adjustment Screw(A)

Adjustment Procedure/Diagrams

1) Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
2) Play a blank tape and observe if the tape passes accurately over the A/C Head without tape curling or folding.
3) If folding or curling is occured then adjust the Tilt Adjustment Screw(C) while the tape is running to resemble Fig. C-5-3.
4) Reconfirm the tape path after Playback about 4~5 seconds.

NOTE

Ideal A/C head height occurs when the tape runs between 0.2~0.25mm above the bottom edge of the A/C Head core.



A/C Head Base

Fig. C-5-1

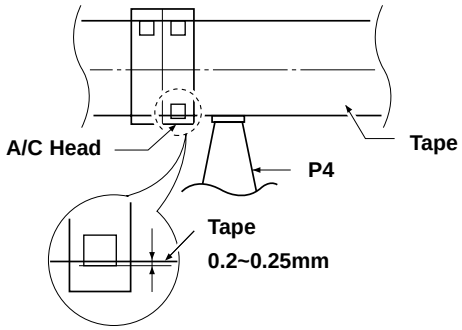
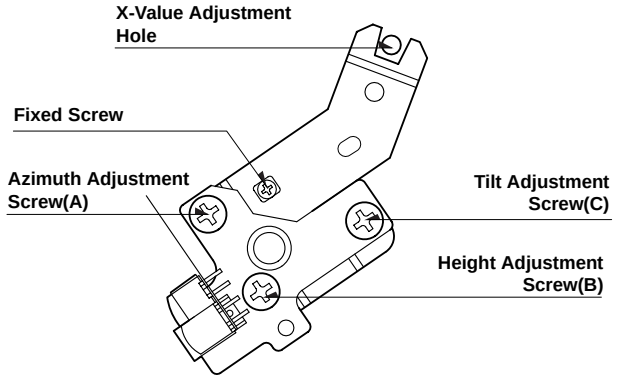


Fig. C-5-3



A/C Head Assembly

Fig. C-5-2

5-2. Confirm that the tape passes smoothly between the Take-up Guide and Pinch Roller(using a mirror or the naked eye).

1) After completing Step 5-1.(Preliminary Adjustment), check that the tape passes around the Take-up Guide and Pinch Roller without folding or curling at the top or bottom.
   (1) If folding or curling is observed at the bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the clockwise direction.
   (2) If folding or curling is observed at the top of it then slowly turn the Tilt Adjustment Screw(C) in the counterclockwise direction.

NOTE:

Check the RF envelope after adjusting the A/C Head, if the RF waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF waveform.

5-3. Precise Adjustment (Azimuth adjustment)

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
• Oscilloscope • Alignment Tape(SP) • Screw Driver(+) Type 5mm	• Audio output jack	• Play an Alignment Tape 1KHz, 7KHz Sections	• Azimuth Adjustment Screw(A) • Height Adjustment Screw(B)

Adjustment Procedure

1) Connect the probe of the oscilloscope to Audio Output Jack.
2) Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for maximum output of the 1KHz and 7KHz segments, while maintaining the flattest envelope differential between the two frequencies.

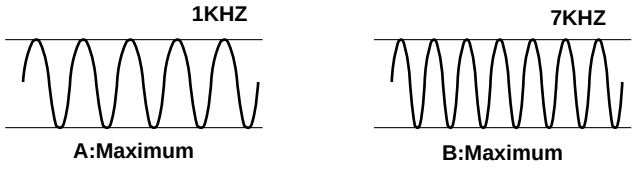
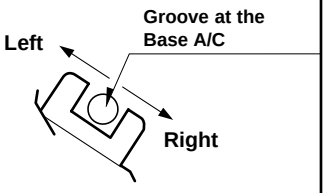


Fig. C-5-4

6. X-Value Adjustment

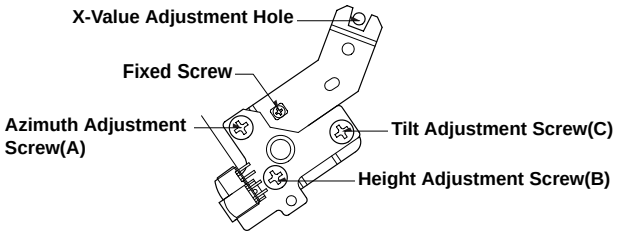
Purpose: To obtain compatibility with the other VCR(VCP) Models.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
• Oscilloscope • Alignment Tape(SP only) • Screw Driver(+) Type 5mm	• CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point	• Play an Alignment Tape	

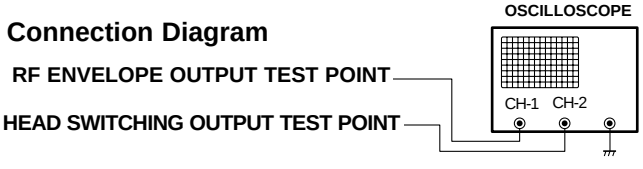
Adjustment Procedure

1) Release the Automatic Tracking to run long enough for tracking to complete it's cycle.
2) Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the diagram to find the center of the peak that allows for the maximum waveform envelope.
   This method should allow the 31μm Head to be centrally located over the 58μm tape track.
3) Tighten the Base Assembly A/C Head mounting Screw.

Adjustment Diagram



Connection Diagram



DECK MECHANISM ADJUSTMENT

7. Adjustment after Replacing Drum Assembly (Video Heads)

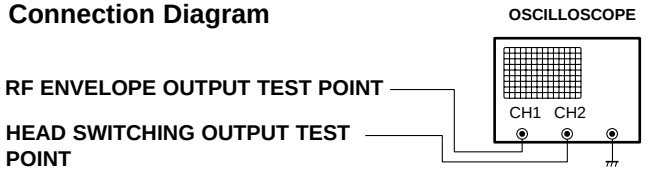
Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Points
• Oscilloscope • Alignment Tapes • Blank Tape • Post Height Adjusting Driver • Screw Driver(+) Type 5mm	• CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point	• Play the Blank Tape • Play an Alignment Tape	• Guide Roller Precise Adjustment • Switching Point • Tracking Preset • X-Value

Checking/Adjustment Procedure

Play a blank tape and check for tape curling or creasing around the Roller Guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment".

Connection Diagram



Waveform

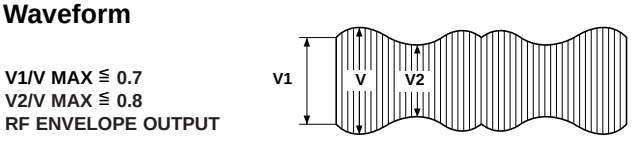


Fig. C-7

8. Check the Tape Travel after Reassembling Deck Assembly.

8-1. Checking Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

Test Equipment/ Fixture	Specification	Connection Points	Test Conditions (Mechanism Condition)
• Oscilloscope • Alignment Tapes(with 6H 3KHz Color Bar Signal) • Stop Watch	• RF Locking Time: Less than 5 sec. • Audio Locking Time:Less than 10sec	• CH-1: PB RF Envelope • CH-2: Audio Output • RF Envelope Output Point • Audio Output Jack	• Play an Alignment Tape (with 6H 3kHz Color Bar Signal)

Checking Procedure

Play an Alignment Tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications.

NOTES:

1) CUE is the forward search mode
2) REV is the backward search mode
3) Refer to the Play mede

8-2. Checking for tape curling or jamming

Test Equipment/ Fixture	Specification	Test Conditions (Mechanism Condition)
• T-160 Tape • T-120 Tape	• Be sure there is no tape jamming or curling at the begining, middle or end of the tape.	• Run the CUE, REV, Play mode at the beginning and the end of the tape.

Checking Procedure

1) Confirm that the tape runs smoothly around the roller guides, Drum and A/C Head Assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the begining, middle and end sections of the tape.
2) Confirm that the tape passes over the A/C Head Assembly as indicated by proper audio reproduction and proper tape counter performance.

MAINTENANCE/INSPECTION PROCEDURE

1. Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.
Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

Phenomenon	Inspection	Replacement
Color beats	Dirt on Full-Erase Head	o
Poor S/N, no color	Dirt on Video Head	o
Vertical or Horizontal jitter	Dirt on Video Head Dirt on tape transport system	o
Low volume, Sound distorted	Dirt on Audio/Control Head	o
Tape does not run. Tape is slack	Dirt on Pinch Roller	o
In Review and Unloading (off mode), the tape is rolled up loosely.	Clutch Assembly D35 torque reduced	o
	Cleaning Drum and transport system	Fig. C-9-3

NOTE

If locations marked with **o** do not operate normally after cleaning, check for wear and replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations and see the Greasing (Page 4-21, 22) for the sections to be lubricated and greased.

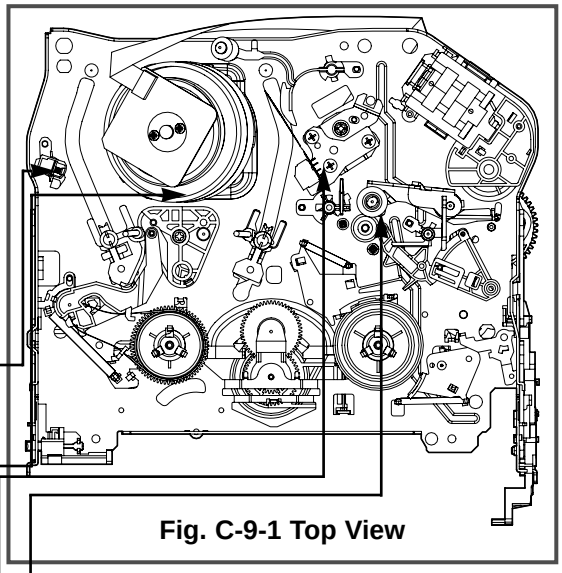


Fig. C-9-1 Top View

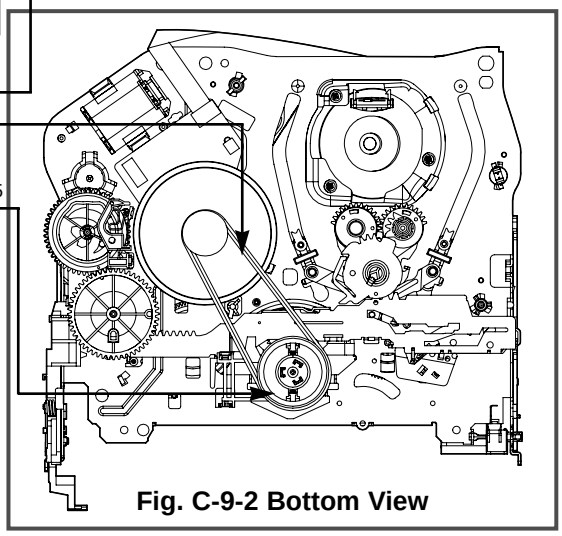


Fig. C-9-2 Bottom View

*** No. (1)~(12) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.**

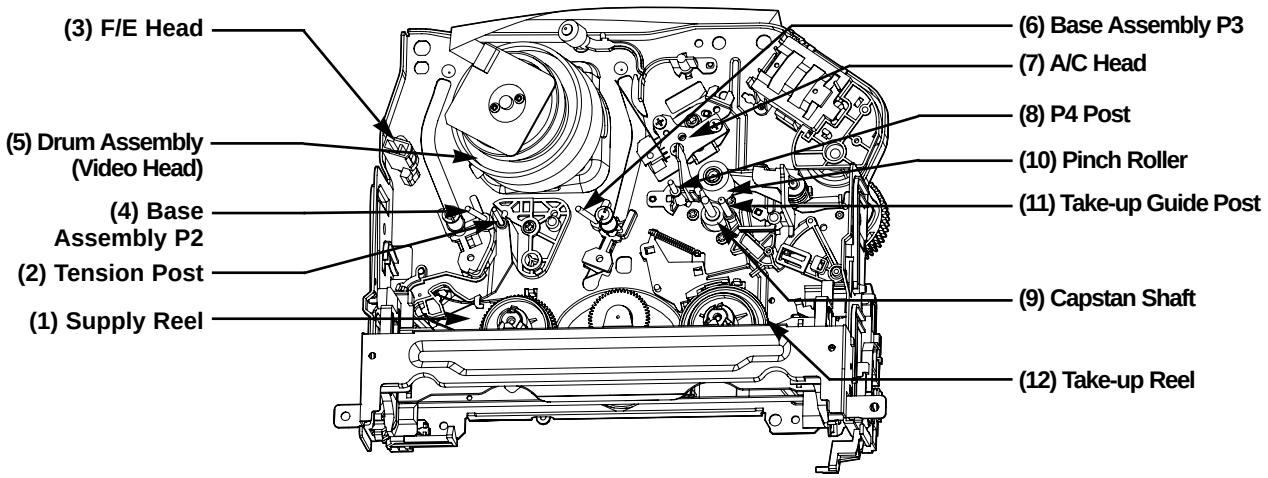


Fig. C-9-3 Tape Transport System

2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatibility with the other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used.
But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1

When inspection is necessary / Average hours used per day	About 1 year	About 18 months	About 3 years
One hour	■	■	■
Two hours		■	■
Three hours			■

4. Supplies Required for Inspection and Maintence

(1) Grease : Kanto G-311G (Blue) or equivalent
(2) Isopropyl Alcohol or equivalent
(3) Cleaning Patches
(4) Grease : Kanto G-381(Yellow)

5. Maintenance Procedure

5-1) Cleaning

(1) Cleaning video head
First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left.
(Do not move the cleaning patch vertically. Make sure that only the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.)
Thoroughly dry the head. Then run the test tape. If Isopropyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.
(2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isopropyl Alcohol.

NOTES:

① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.
② Make sure that during cleaning you do not touch the tape transport system with excessive force that would cause deformation or damage to the system.

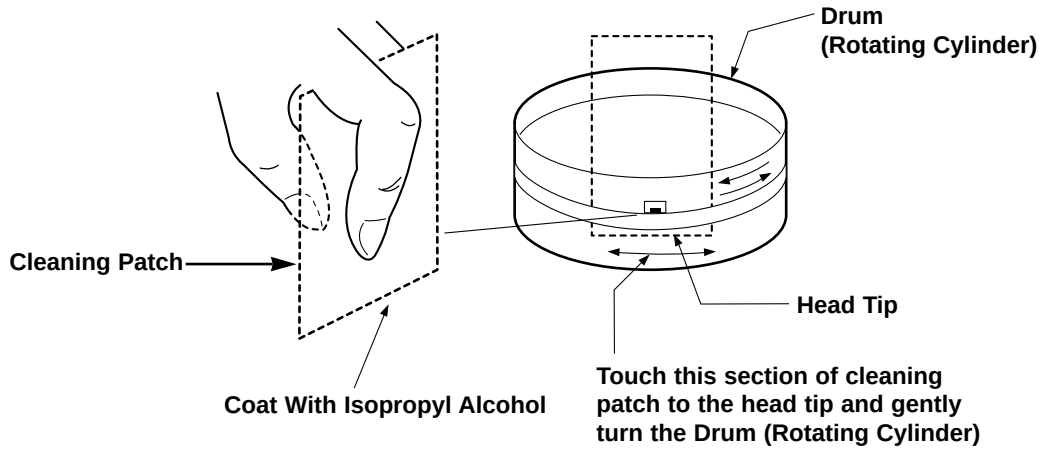

Drum
(Rotating Cylinder)
Cleaning Patch
Head Tip
Coat With Isopropyl Alcohol
Touch this section of cleaning patch to the head tip and gently turn the Drum (Rotating Cylinder)

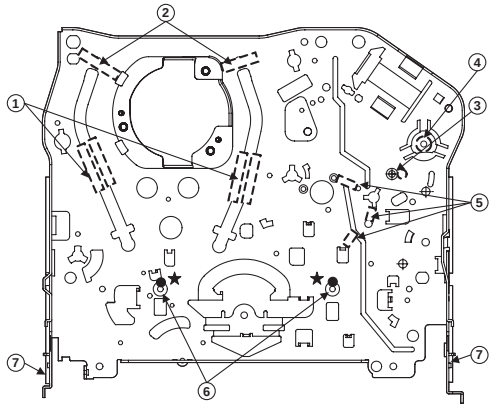
Fig. C-9-4

5-2) Greasing

(1) Greasing guidelines
Apply grease, with a cleaning patch. Do not use excess grease. It may come into contact with the tape transport or drive system. Wipe excessive grease and clean with cleaning patch wetted in Isopropyl Alcohol.

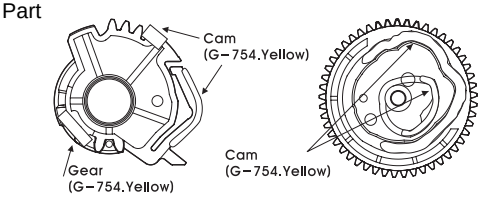
NOTE:Greasing Points

1) Loading Path Inside & Top side
2) Base Assembly P2, P3 stopper
3) Shaft
4) L/D Motor Gear Wheel Part
5) Arm Take-up Rubbing Sections
6)Reel S,T shaft(G381:Yellow)
7) Arm Assembly F/L Rotating Sections

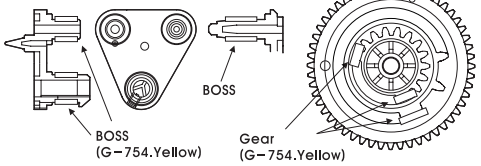


Chassis (Top)

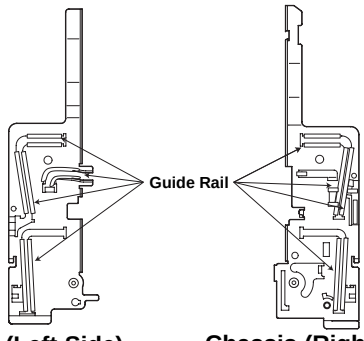
Gear Part



Gear Sector **Gear Cam**



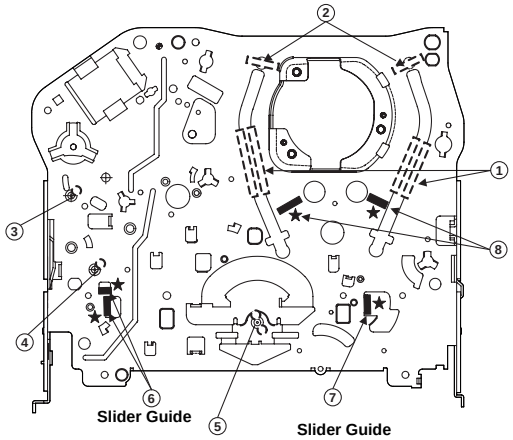
Base Loading **Gear Drive**



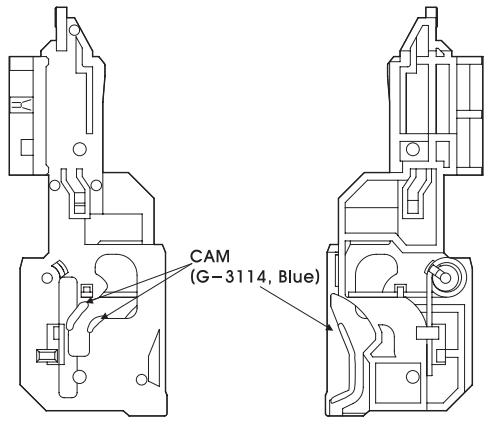
Chassis (Left Side) **Chassis (Right Side)**

(2) Periodic greasing
Grease specified locations every 5,000 hours.

1) Loading Path Inside & Top side
2) Base Assembly P2,P3 stopper
3) Shaft
4) Shaft
5) Clutch Assembly D35 Shaft
6) Plate Slider Guide Sections
7) Plate Slider Guide Sections
8) Gear Assembly P2, P2 Rubbing Sections



Chassis (Bottom)



Gear Rack F/L

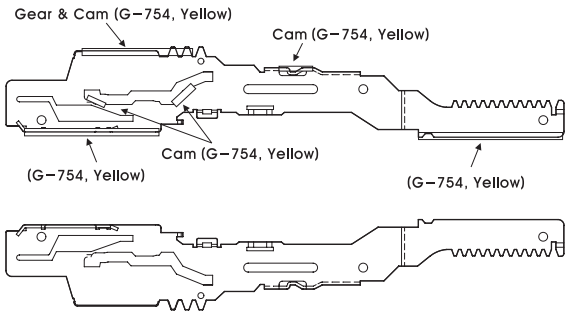
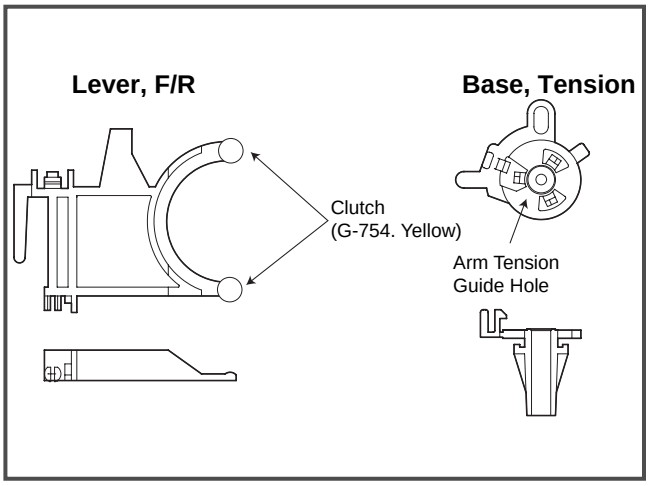
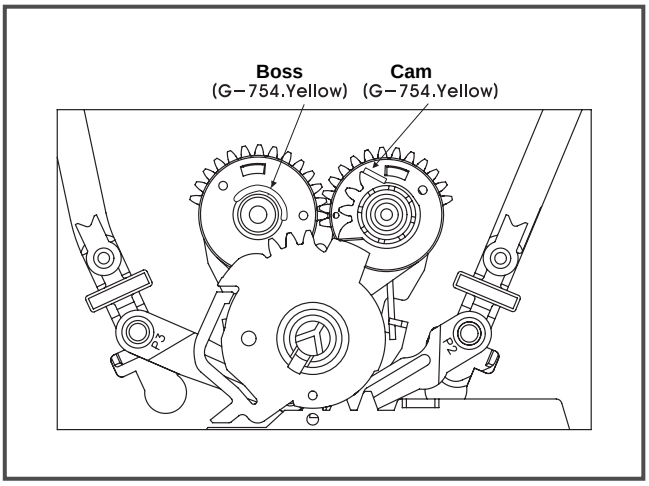


Plate Slider

Lever, F/R, Base, Tension



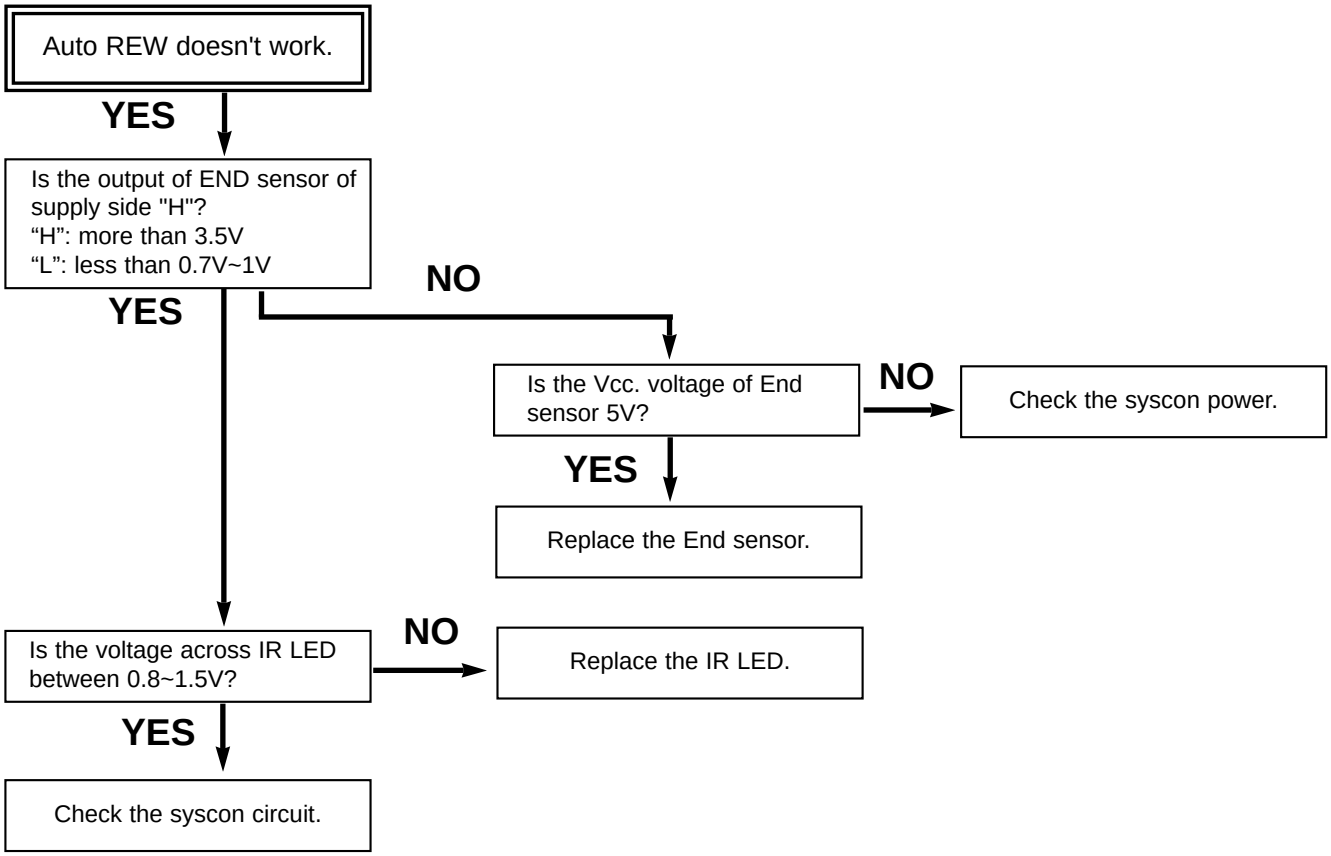
GEAR AY, P2 & P3



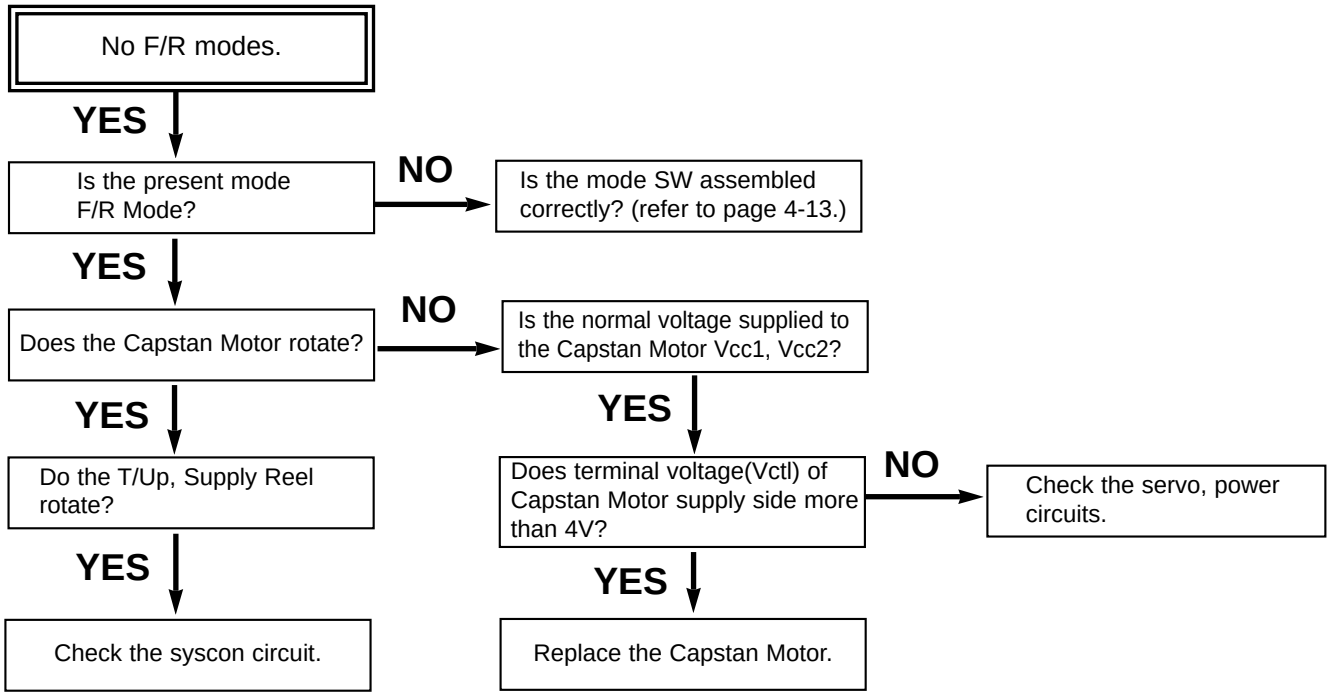
MECHANISM TROUBLESHOOTING GUIDE

1.Deck Mechanism

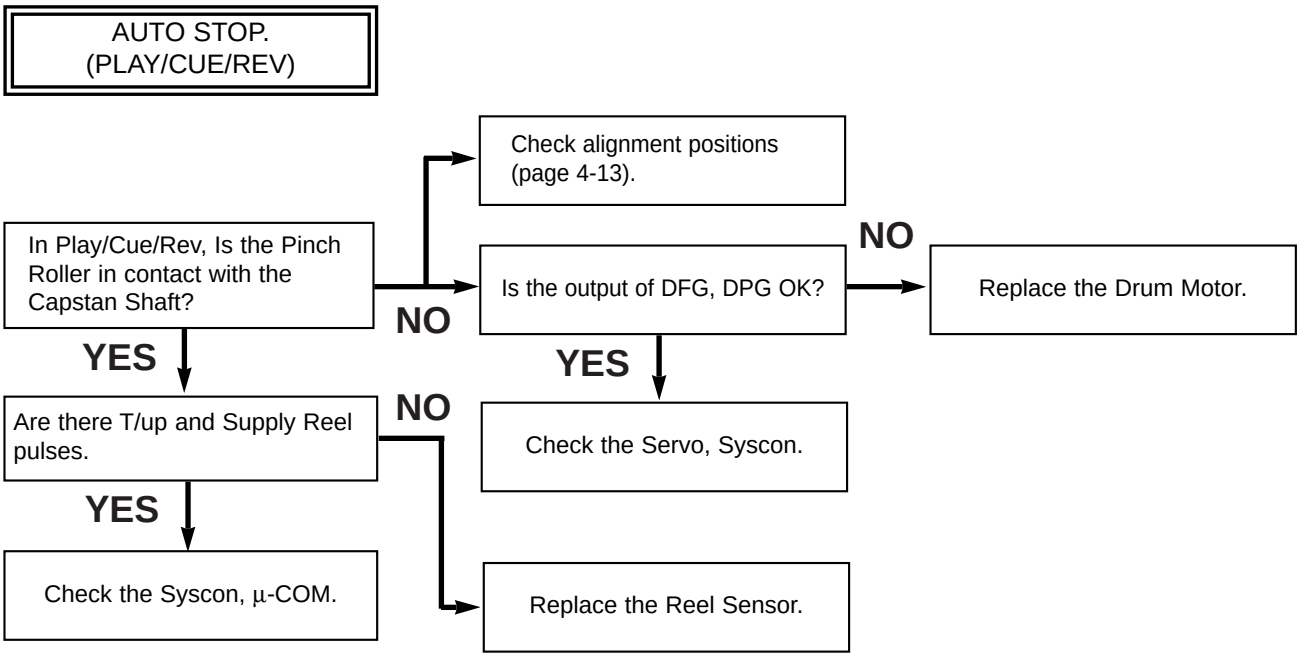
A.



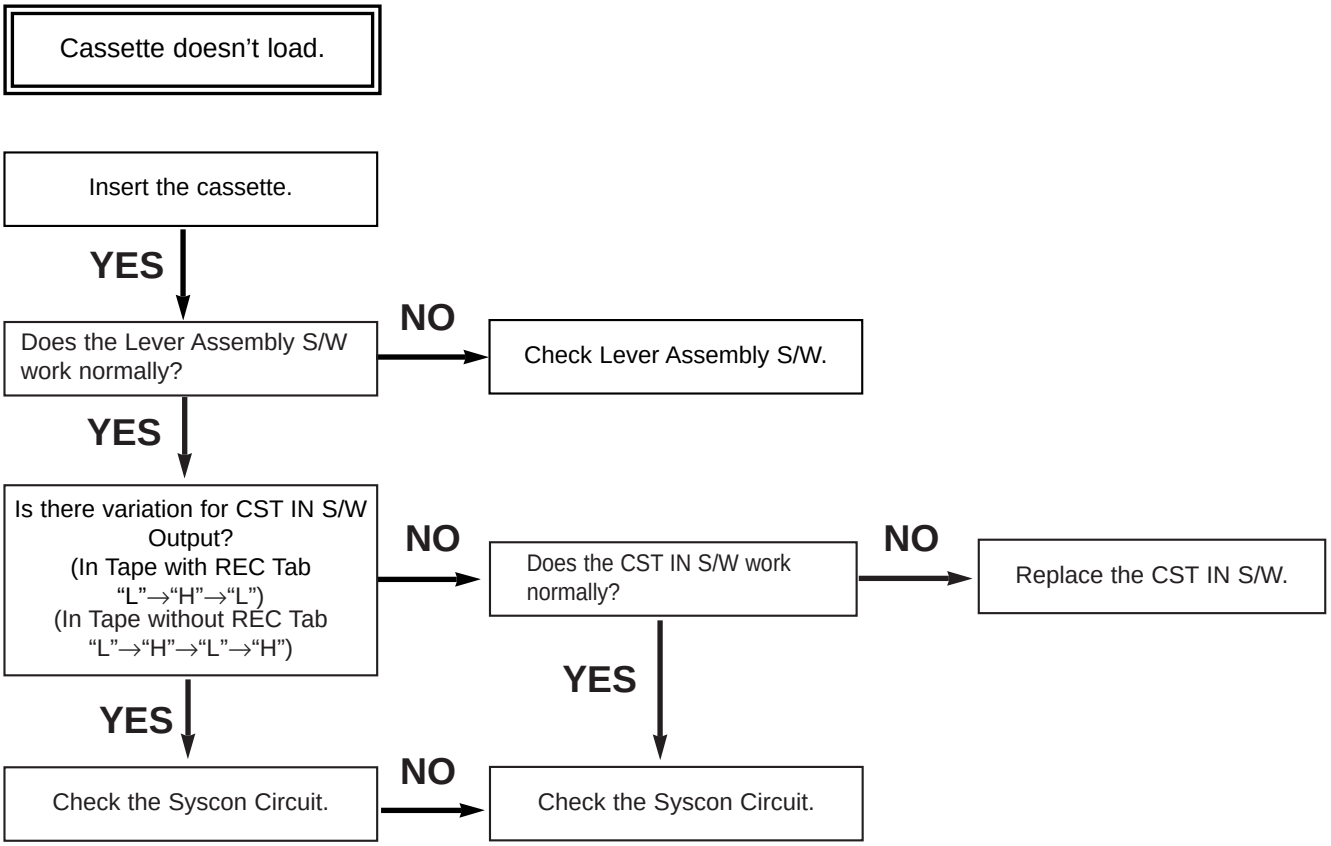
B.



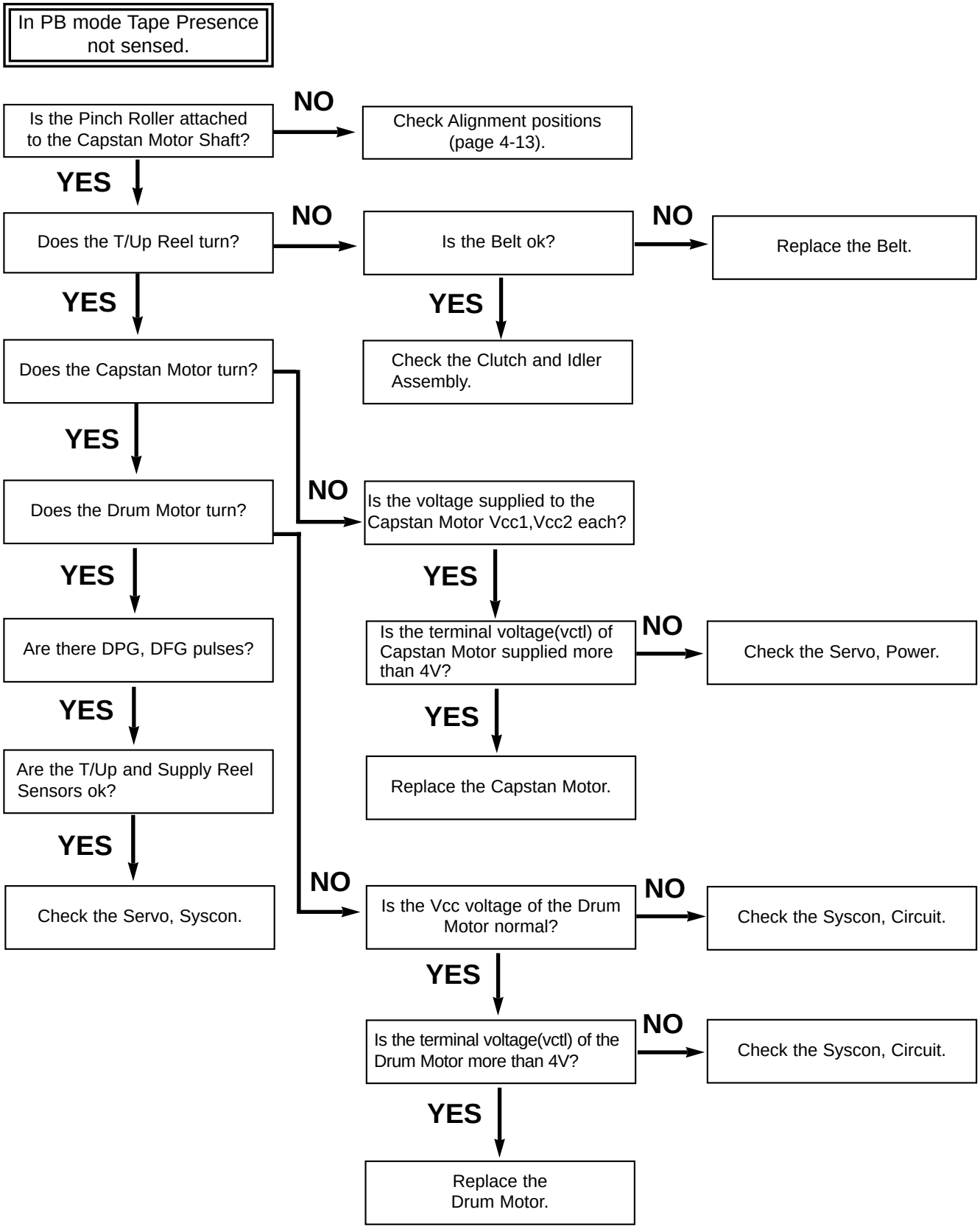
C.


AUTO STOP.
(PLAY/CUE/REV)
In Play/Cue/Rev, Is the Pinch Roller in contact with the Capstan Shaft?
Check alignment positions (page 4-13).
NO
YES
Is the output of DFG, DPG OK?
NO
Replace the Drum Motor.
YES
Are there T/up and Supply Reel pulses.
NO
Check the Servo, Syscon.
YES
Check the Syscon, µ-COM.
Replace the Reel Sensor.

D.

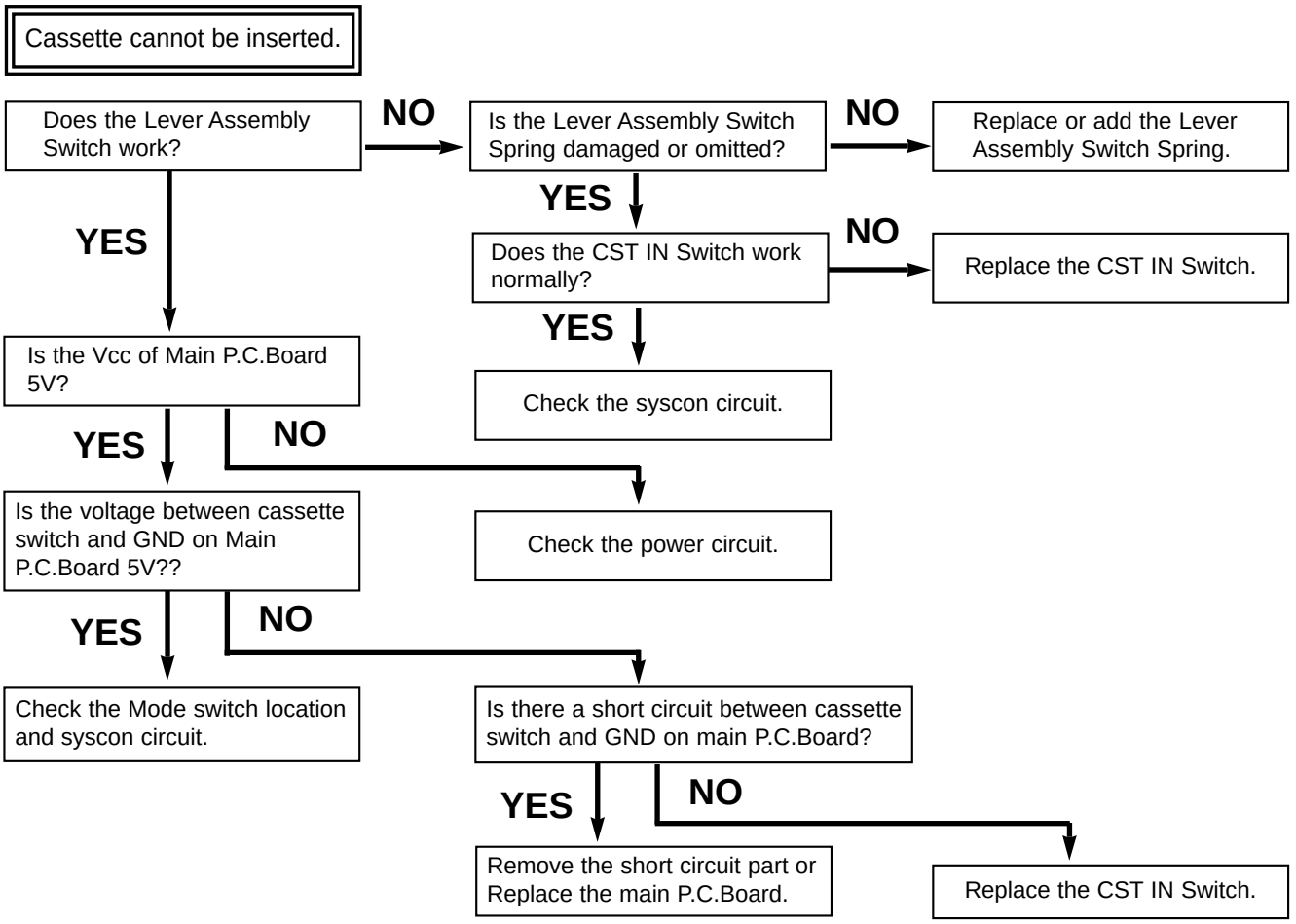

Cassette doesn't load.
Insert the cassette.
YES
Does the Lever Assembly S/W work normally?
NO
Check Lever Assembly S/W.
YES
Is there variation for CST IN S/W Output?
(In Tape with REC Tab
"L"→"H"→"L")
(In Tape without REC Tab
"L"→"H"→"L"→"H")
NO
Does the CST IN S/W work normally?
NO
Replace the CST IN S/W.
YES
YES
Check the Syscon Circuit.
NO
Check the Syscon Circuit.

E.

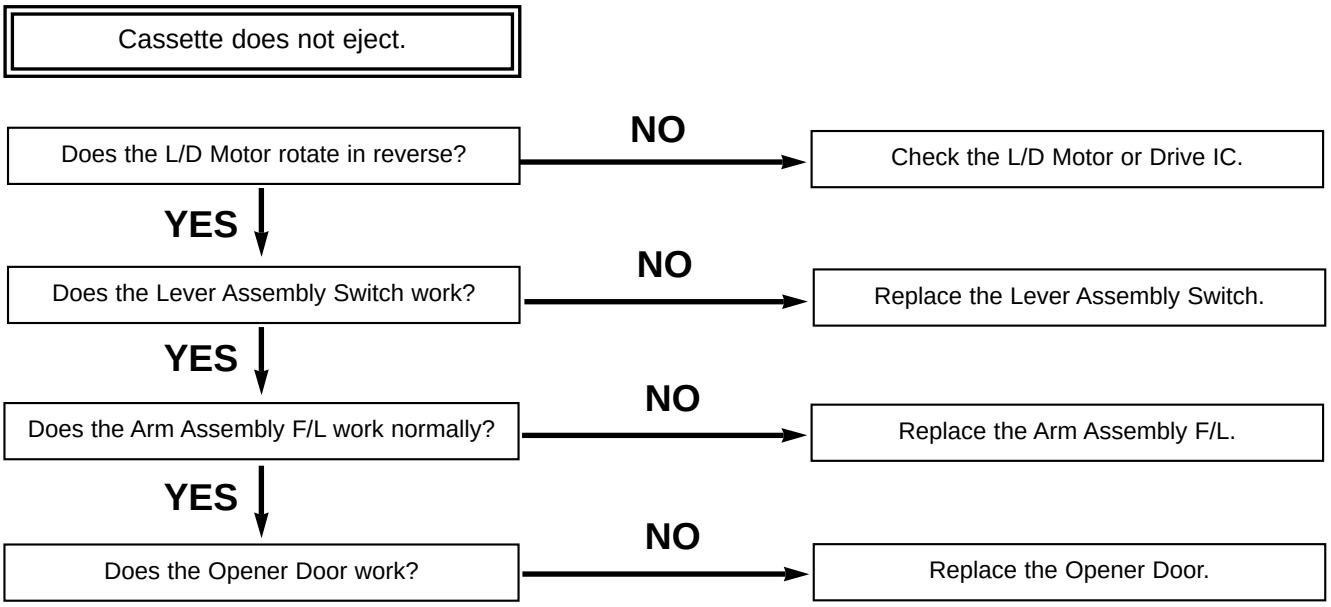

In PB mode Tape Presence not sensed.
Is the Pinch Roller attached to the Capstan Motor Shaft?
NO
Check Alignment positions (page 4-13).
YES
Does the T/Up Reel turn?
NO
Is the Belt ok?
NO
Replace the Belt.
YES
YES
Check the Clutch and Idler Assembly.
Does the Capstan Motor turn?
YES
Does the Drum Motor turn?
NO
Is the voltage supplied to the Capstan Motor Vcc1,Vcc2 each?
YES
YES
Is the terminal voltage(vctl) of Capstan Motor supplied more than 4V?
NO
Check the Servo, Power.
Are there DPG, DFG pulses?
YES
YES
Replace the Capstan Motor.
Are the T/Up and Supply Reel Sensors ok?
YES
NO
Is the Vcc voltage of the Drum Motor normal?
NO
Check the Syscon, Circuit.
Check the Servo, Syscon.
YES
Is the terminal voltage(vctl) of the Drum Motor more than 4V?
NO
Check the Syscon, Circuit.
YES
Replace the Drum Motor.

2. Front Loading Mechanism

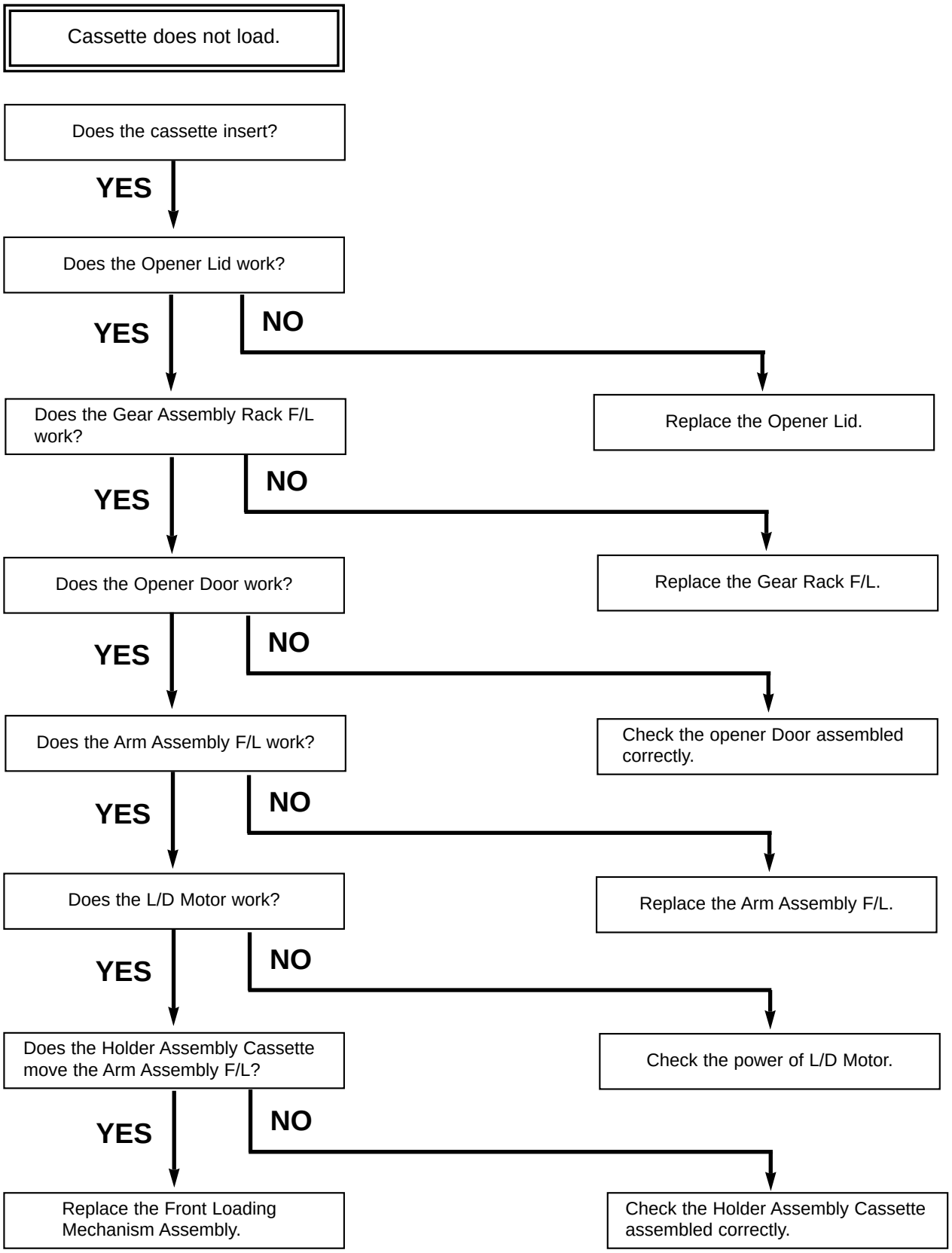
A.


Cassette cannot be inserted.
Does the Lever Assembly Switch work?
NO
Is the Lever Assembly Switch Spring damaged or omitted?
NO
Replace or add the Lever Assembly Switch Spring.
YES
YES
Does the CST IN Switch work normally?
NO
Replace the CST IN Switch.
YES
Is the Vcc of Main P.C.Board 5V?
Check the syscon circuit.
YES
NO
Is the voltage between cassette switch and GND on Main P.C.Board 5V??
Check the power circuit.
YES
NO
Check the Mode switch location and syscon circuit.
Is there a short circuit between cassette switch and GND on main P.C.Board?
YES
NO
Remove the short circuit part or Replace the main P.C.Board.
Replace the CST IN Switch.

B.

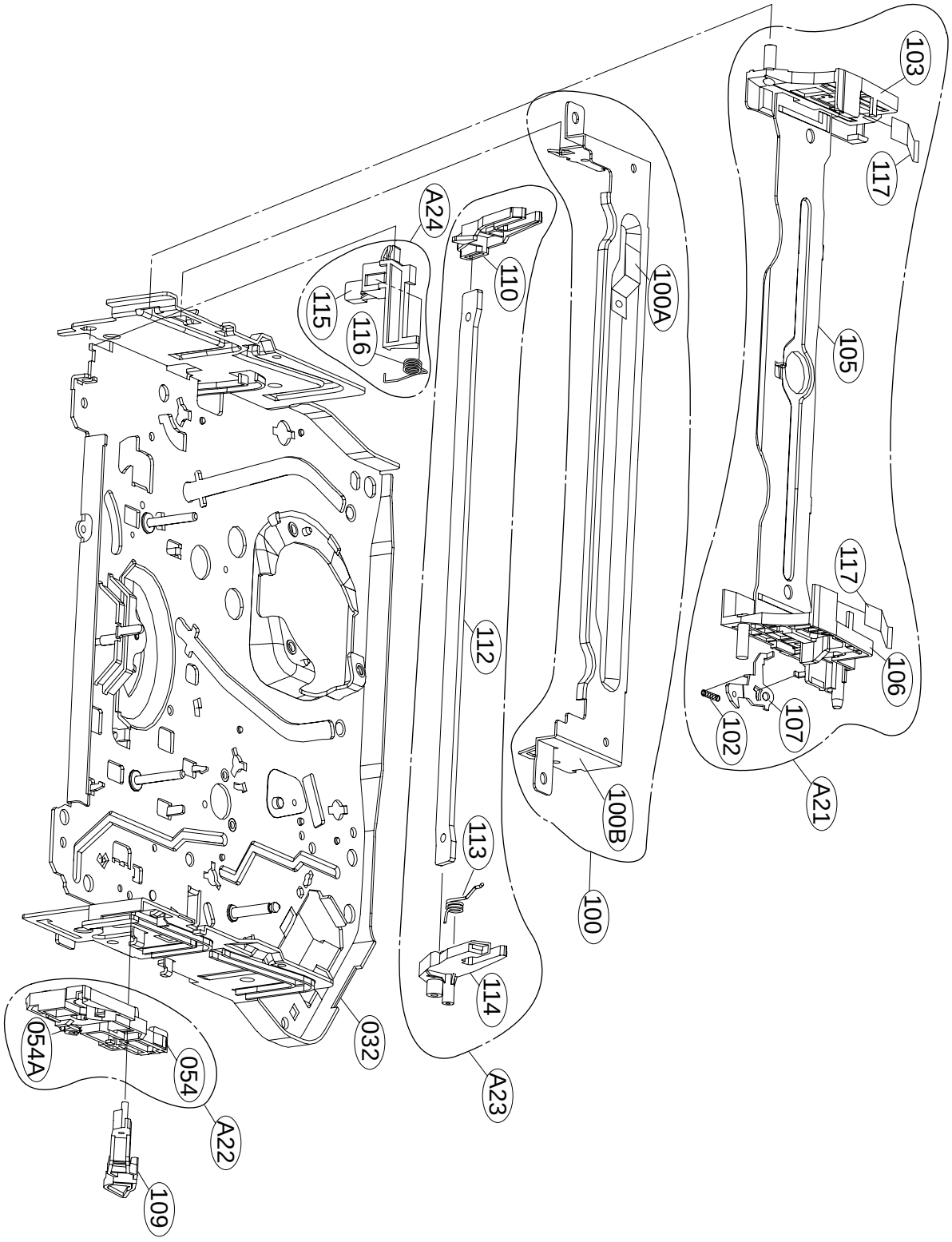


C.


Cassette does not load.
Does the cassette insert?
YES
Does the Opener Lid work?
YES
NO
Replace the Opener Lid.
Does the Gear Assembly Rack F/L work?
YES
NO
Replace the Gear Rack F/L.
Does the Opener Door work?
YES
NO
Check the opener Door assembled correctly.
Does the Arm Assembly F/L work?
YES
NO
Replace the Arm Assembly F/L.
Does the L/D Motor work?
YES
NO
Check the power of L/D Motor.
Does the Holder Assembly Cassette move the Arm Assembly F/L?
YES
NO
Check the Holder Assembly Cassette assembled correctly.
Replace the Front Loading Mechanism Assembly.

EXPLODED VIEWS

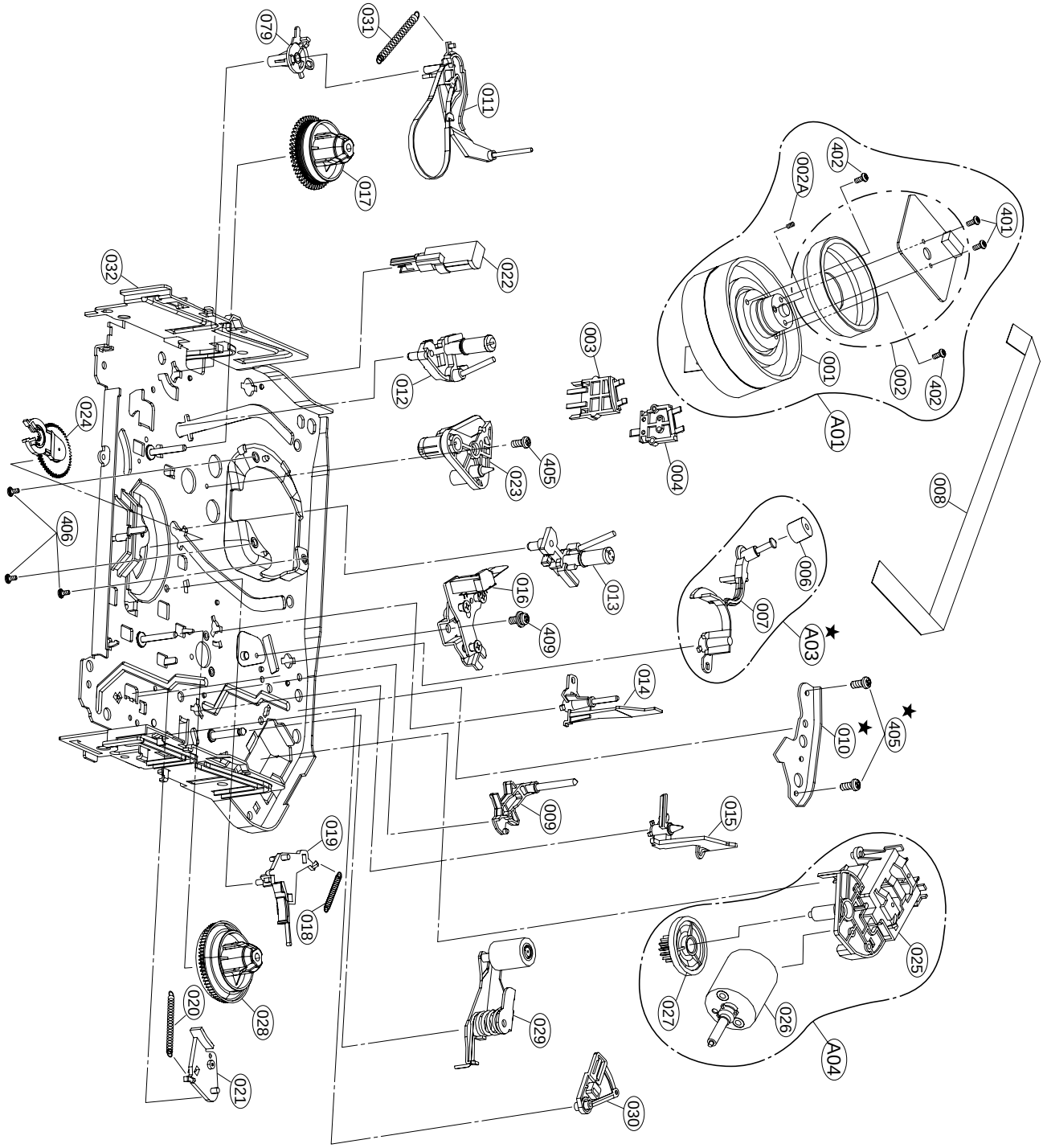
1. Front Loading Mechanism Section



EXPLODED VIEWS

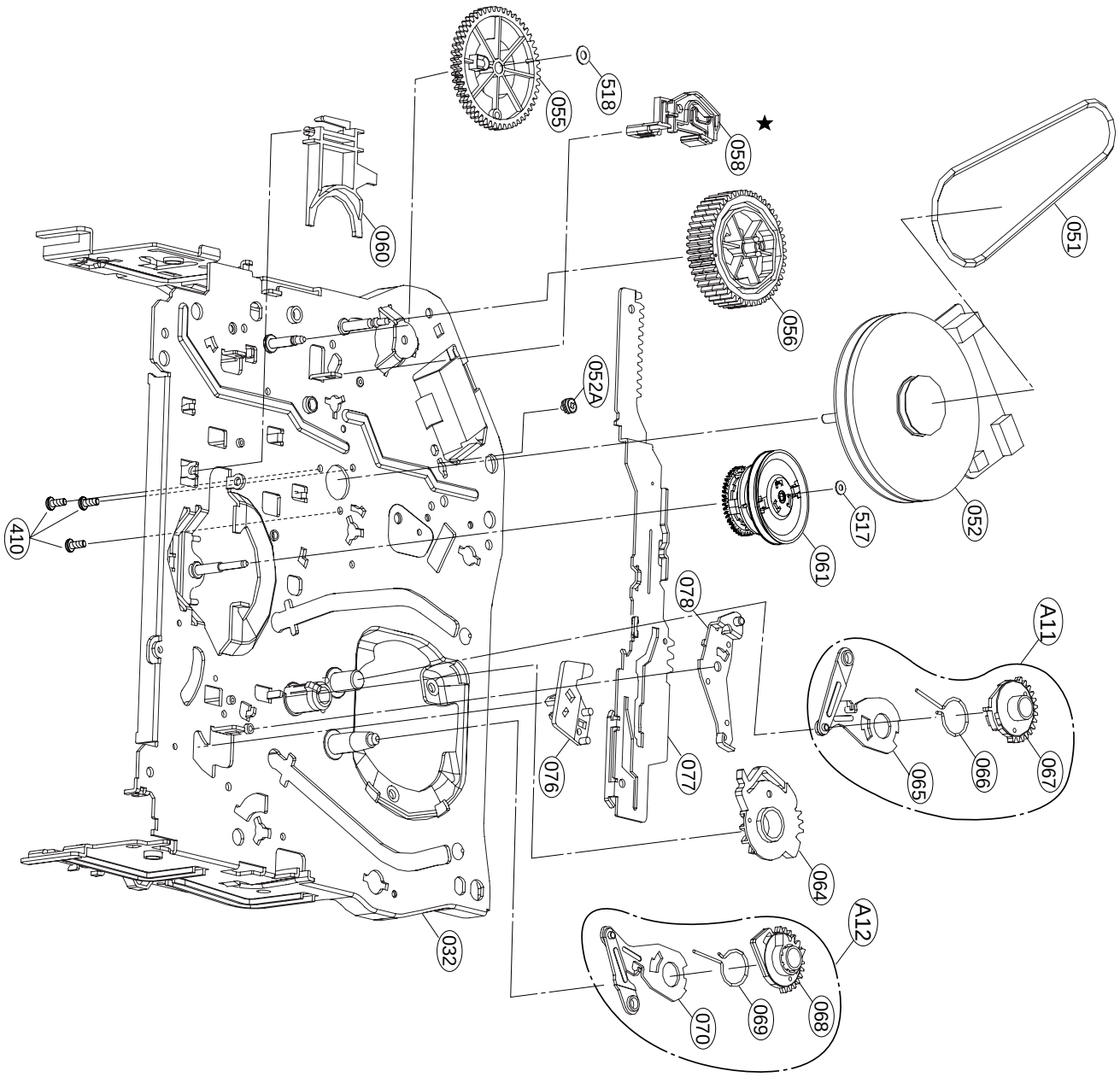
2. Moving Mechanism Section(1)

★ OPTIONAL PART



3. Moving Mechanism Section(2)

★ OPTIONAL PART



MEMO

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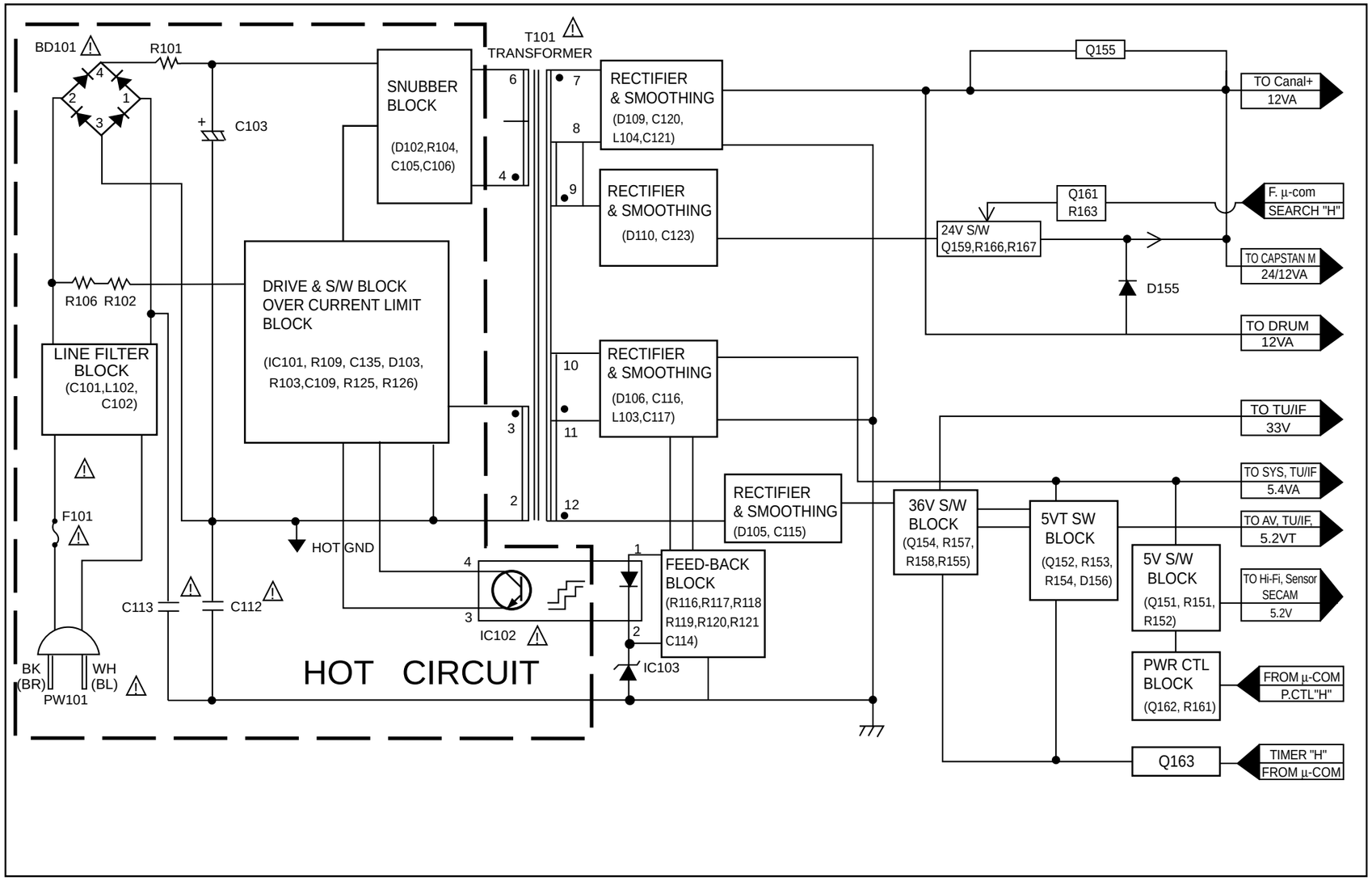
AV & MULTIMEDIA COMPANY. 12,3-chome,Moriya-cho,Kanagawa-ku,Yokohama,Kanagawa-prefecture,221-8528,Japan

Printed in Japan
0305 VP

BLOCK DIAGRAMS

1. Power Block Diagram

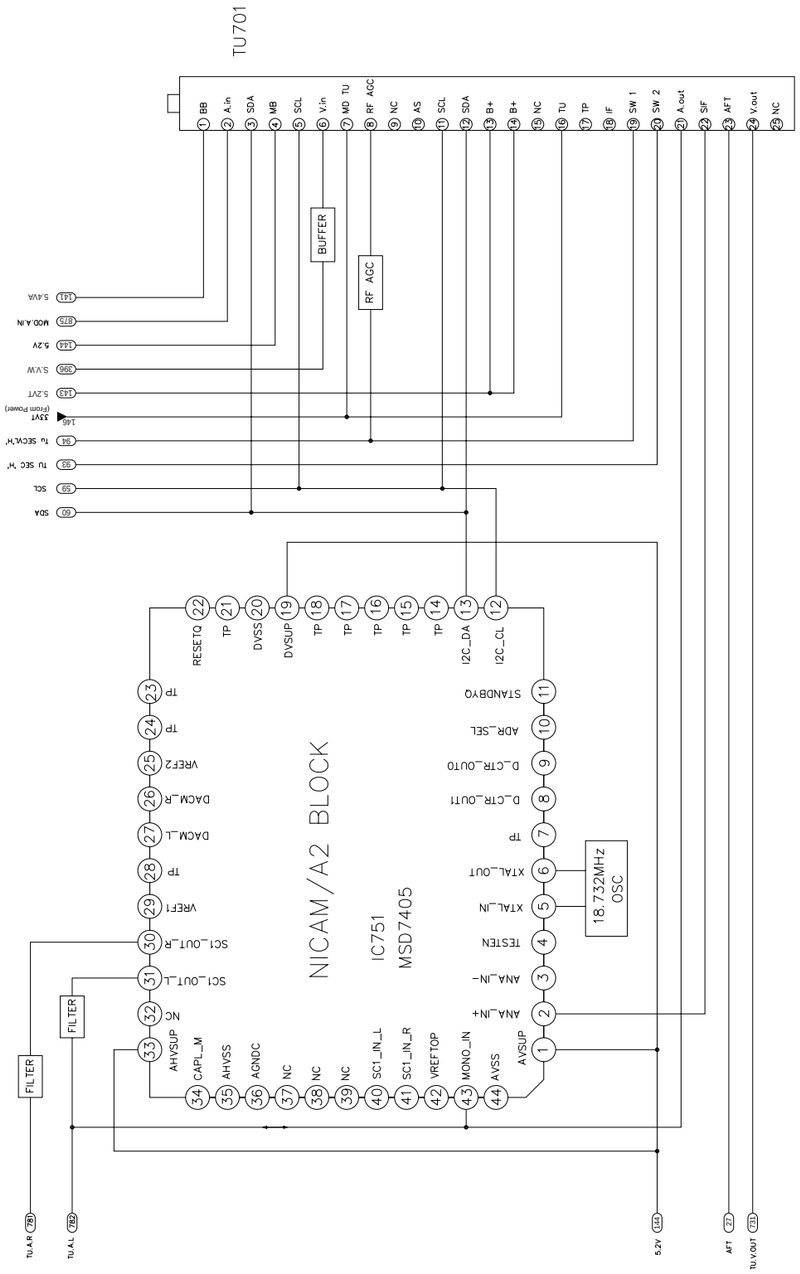


'00 11. 30

NOTES : Symbol denotes AC ground.

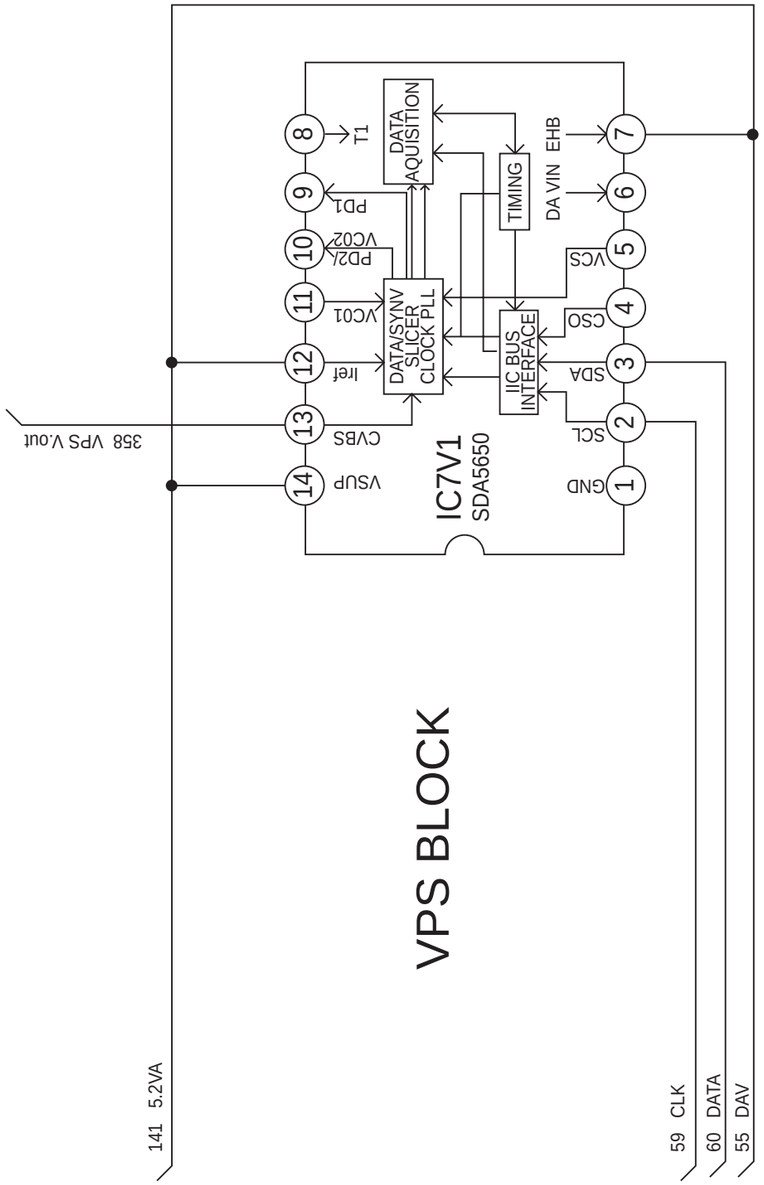
Symbol denotes DC chassis ground.

2. Tu/IF, NICAM & A2 Block Diagram



'99 12.8 R10488BA
BC999NS/BD289Y

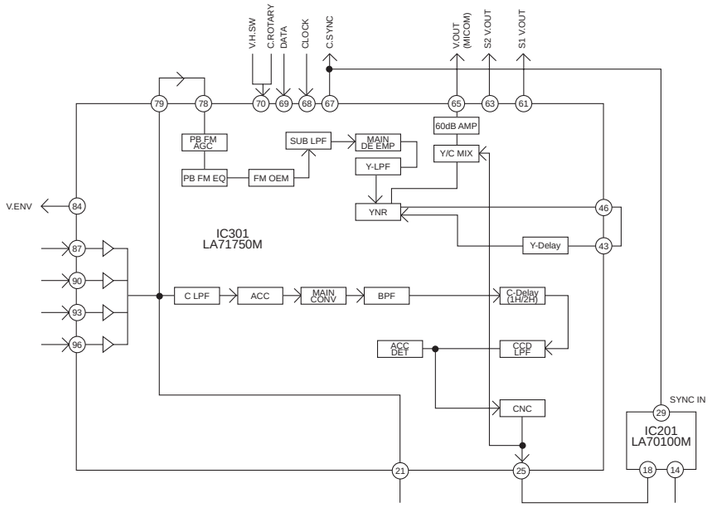
3. VPS Block Diagram



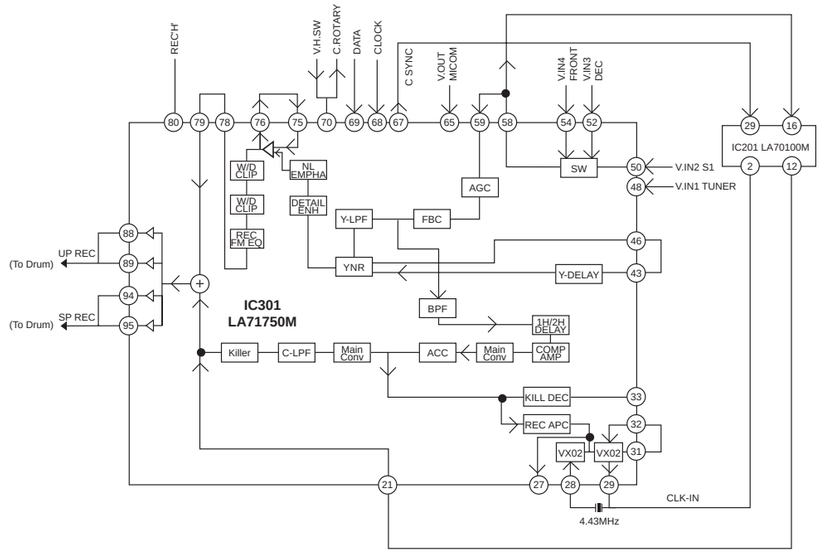
VPS BLOCK

4. Y/C Block Diagram

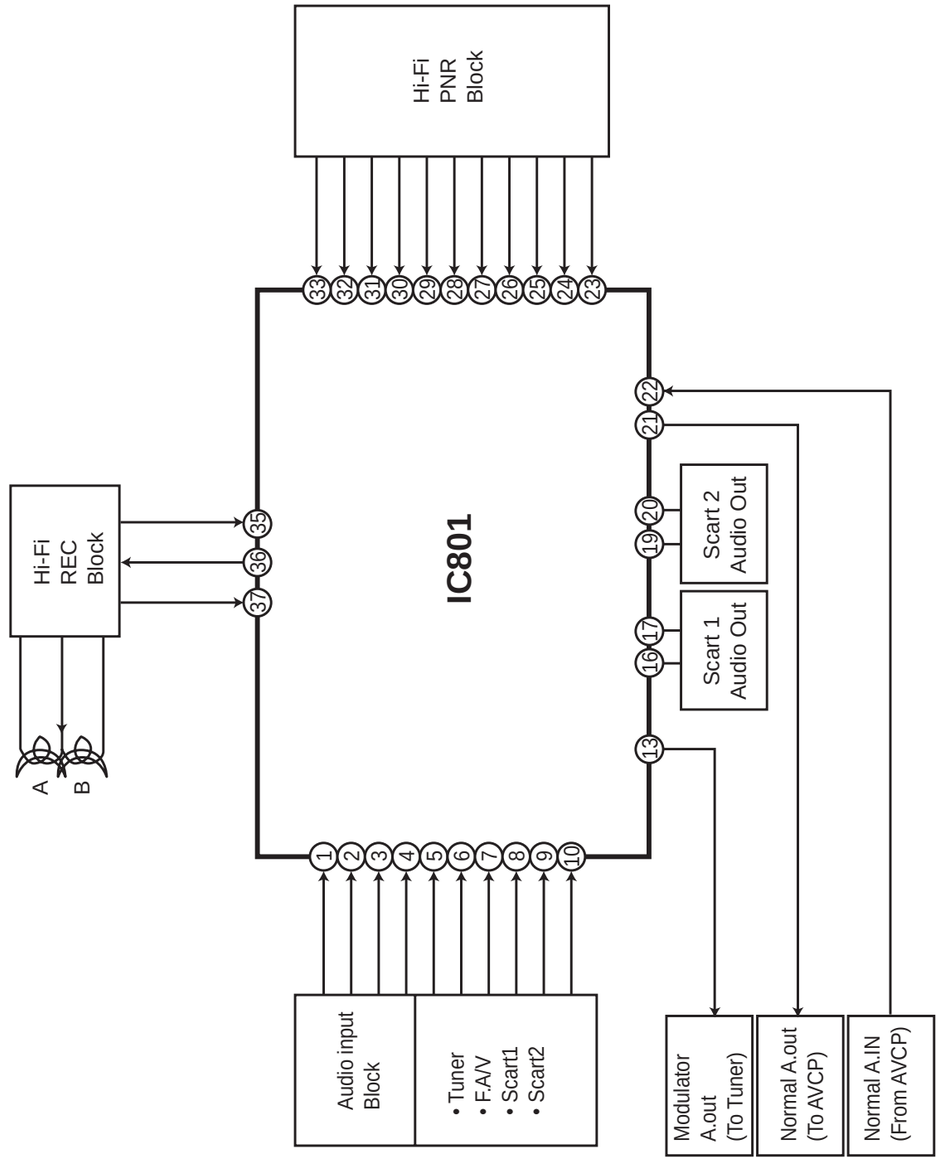
(PB MODE)



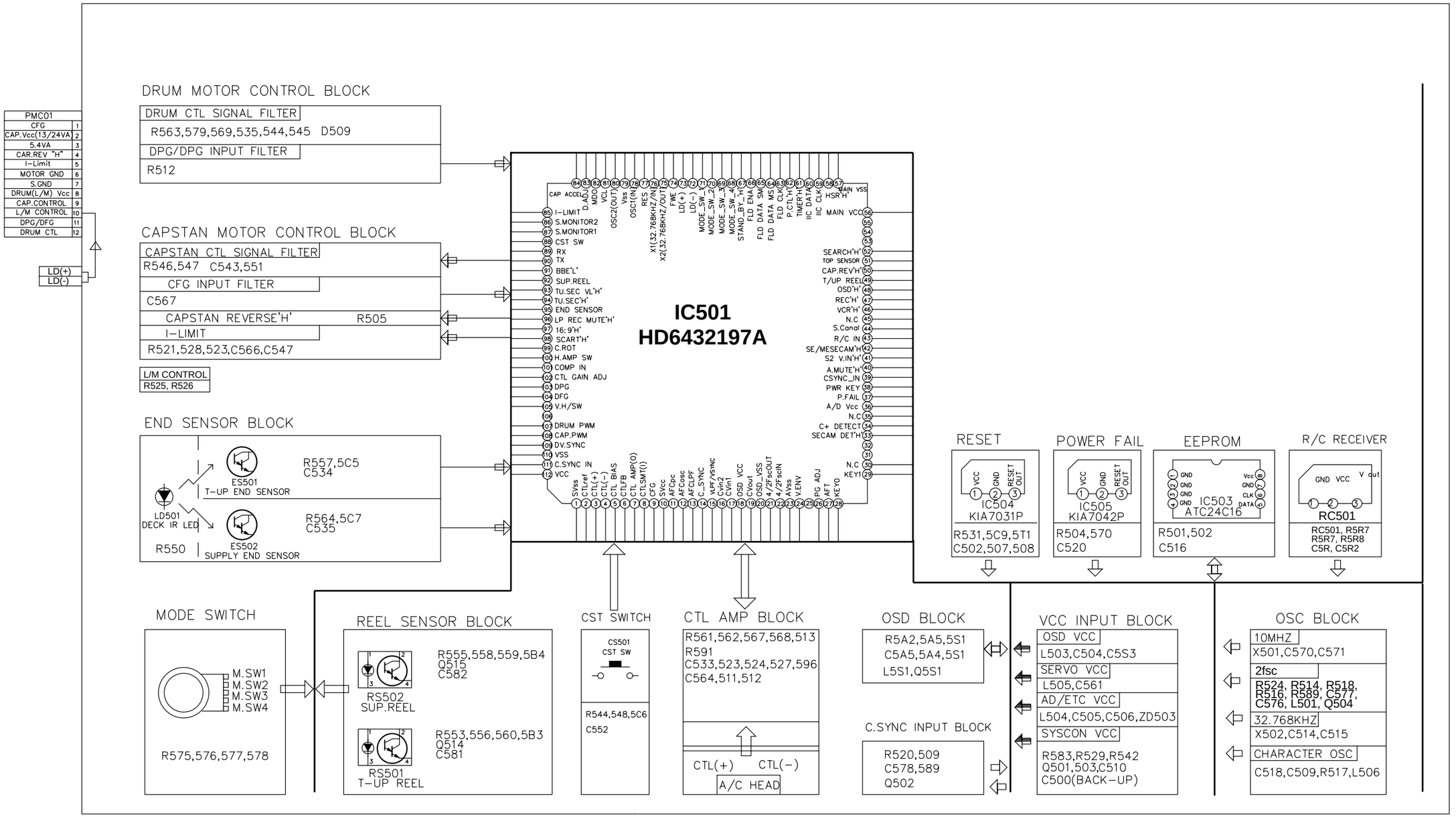
(REC MODE)



5. Hi-Fi Block Diagram(Hi-Fi Model Only)

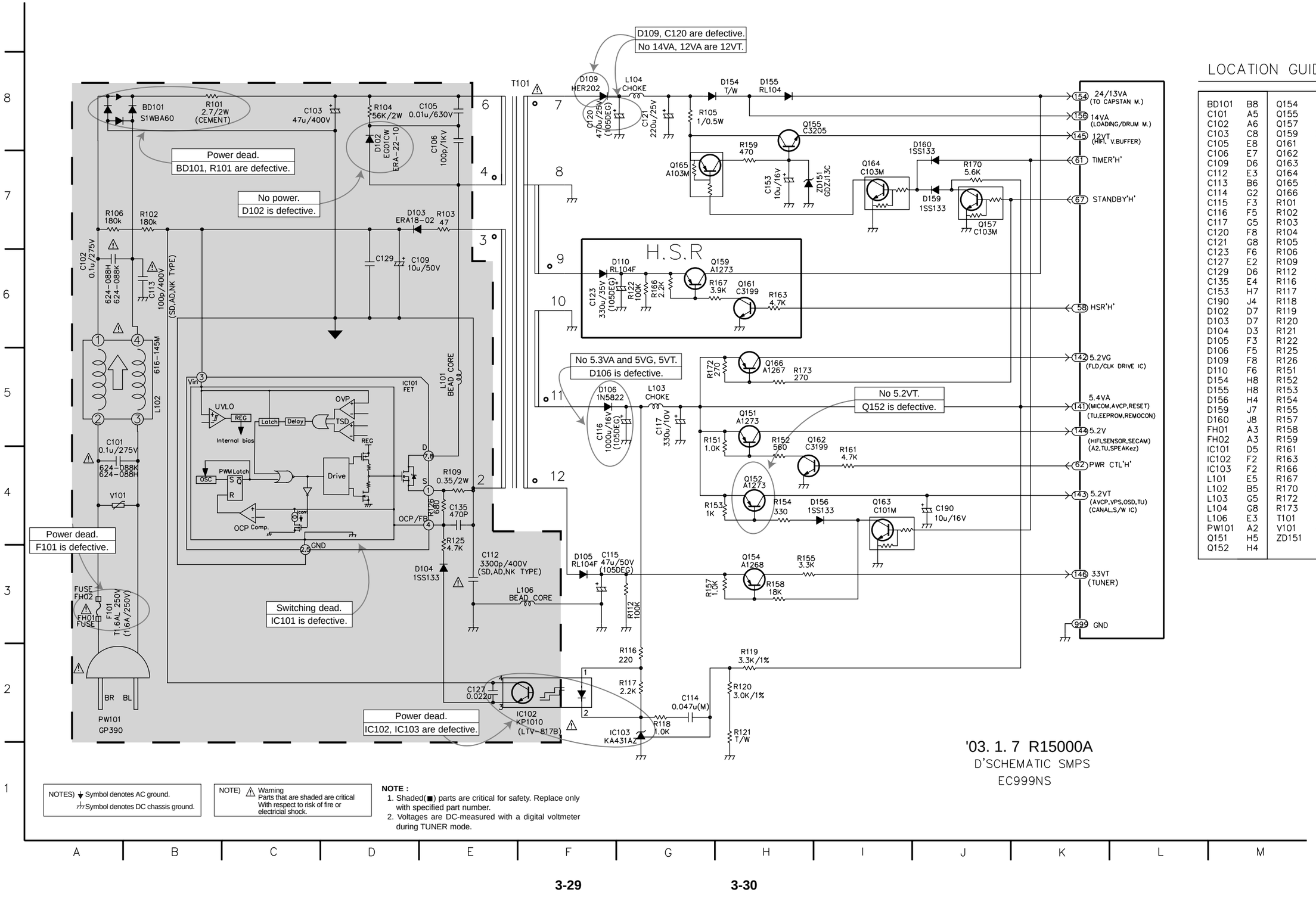


6. System Block Diagram



CIRCUIT DIAGRAMS

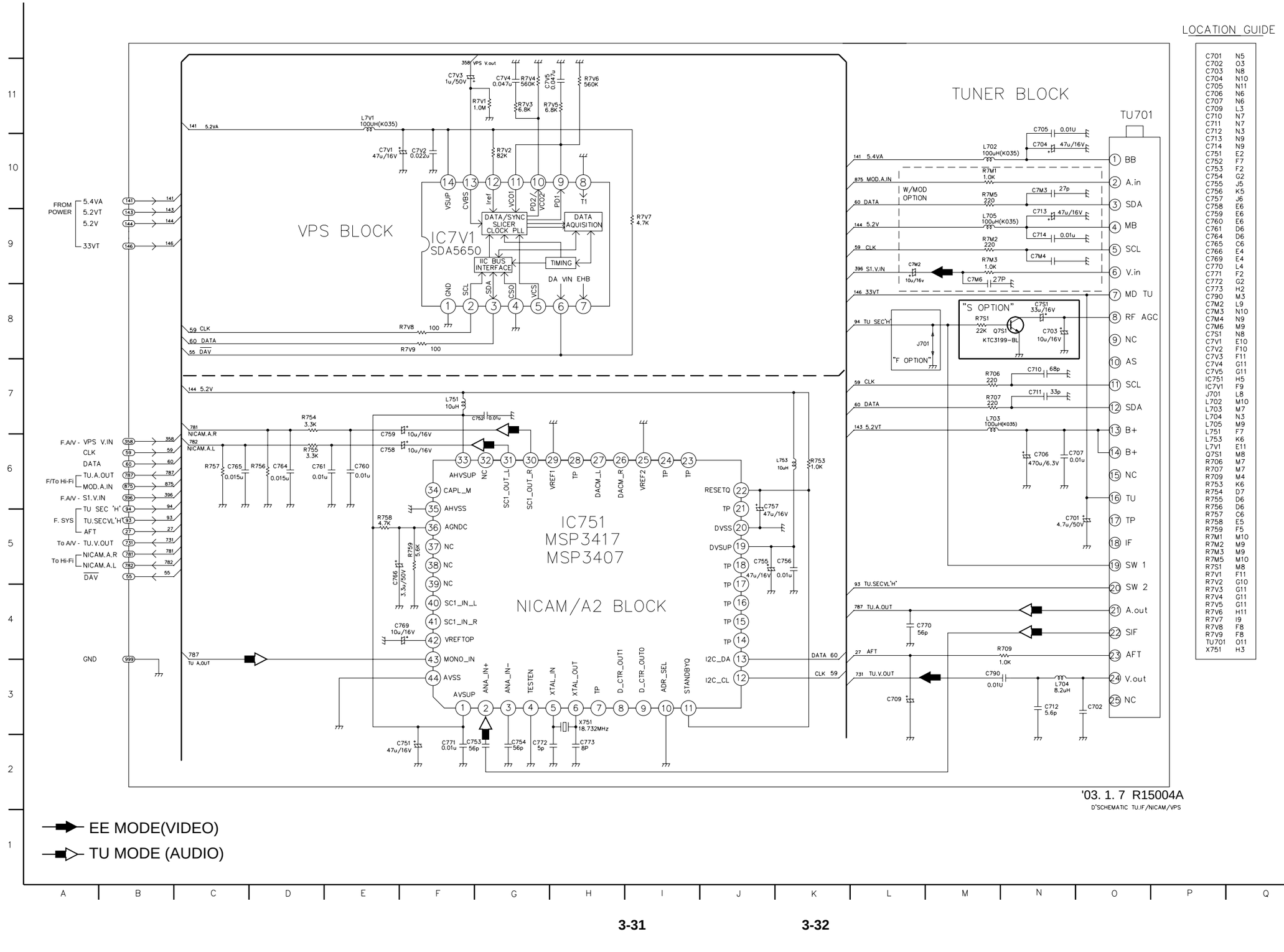
1. Power Circuit Diagram



LOCATION GUIDE

BD101	B8	Q154	H3
C101	A5	Q155	H8
C102	A6	Q157	J7
C103	C8	Q159	G6
C105	E8	Q161	H6
C106	E7	Q162	H5
C109	D6	Q163	I4
C112	E3	Q164	I7
C113	B6	Q165	G7
C114	G2	Q166	H5
C115	F3	R101	B8
C116	F5	R102	B7
C117	G5	R103	E7
C120	F8	R104	D8
C121	G8	R105	G8
C123	F6	R106	A7
C127	E2	R109	E4
C129	D6	R112	G3
C135	E4	R116	G2
C153	H7	R117	G2
C190	J4	R118	G2
D102	D7	R119	H2
D103	D7	R120	H2
D104	D3	R121	H2
D105	F3	R122	G6
D106	F5	R125	E4
D109	F8	R126	E4
D110	F6	R151	G5
D154	H8	R152	H5
D155	H8	R153	G4
D156	H4	R154	H4
D159	J7	R155	H3
D160	J8	R157	G3
FH01	A3	R158	H3
FH02	A3	R159	H8
IC101	D5	R161	I4
IC102	F2	R163	H6
IC103	F2	R166	G6
L101	E5	R167	G6
L102	B5	R170	J7
L103	G5	R172	G5
L104	G8	R173	H5
L106	E3	T101	E8
PW101	A2	V101	A4
Q151	H5	ZD151	I7
Q152	H4		

2. Tuner, NICAM Circuit Diagram



LOCATION GUIDE

C701	N5
C702	O3
C703	N8
C704	N10
C705	N11
C706	N6
C707	N6
C709	L3
C710	N7
C711	N7
C712	N3
C713	N9
C714	N9
C751	E2
C752	F7
C753	F2
C754	G2
C755	J5
C756	K5
C757	J6
C758	E6
C759	E6
C760	E6
C761	D6
C764	D6
C765	C6
C766	E4
C769	E4
C770	L4
C771	F2
C772	G2
C773	H2
C790	M3
C7M2	L9
C7M3	N10
C7M4	N9
C7M6	M9
C7M5	N8
C7V1	E10
C7V2	F10
C7V3	F11
C7V4	G11
C7V5	G11
IC751	H5
IC7V1	F9
J701	L8
L702	M10
L703	M7
L704	N3
L705	M9
L751	F7
L753	K6
L7V1	E11
Q7S1	M8
R706	M7
R707	M7
R709	M4
R753	K6
R754	D7
R755	D6
R756	D6
R757	C6
R758	E5
R759	F5
R7M1	M10
R7M2	M9
R7M3	M9
R7M5	M10
R7S1	M8
R7V1	F11
R7V2	G10
R7V3	G11
R7V4	G11
R7V5	G11
R7V6	H11
R7V7	I9
R7V8	F8
R7V9	F8
TU701	O11
X751	H3

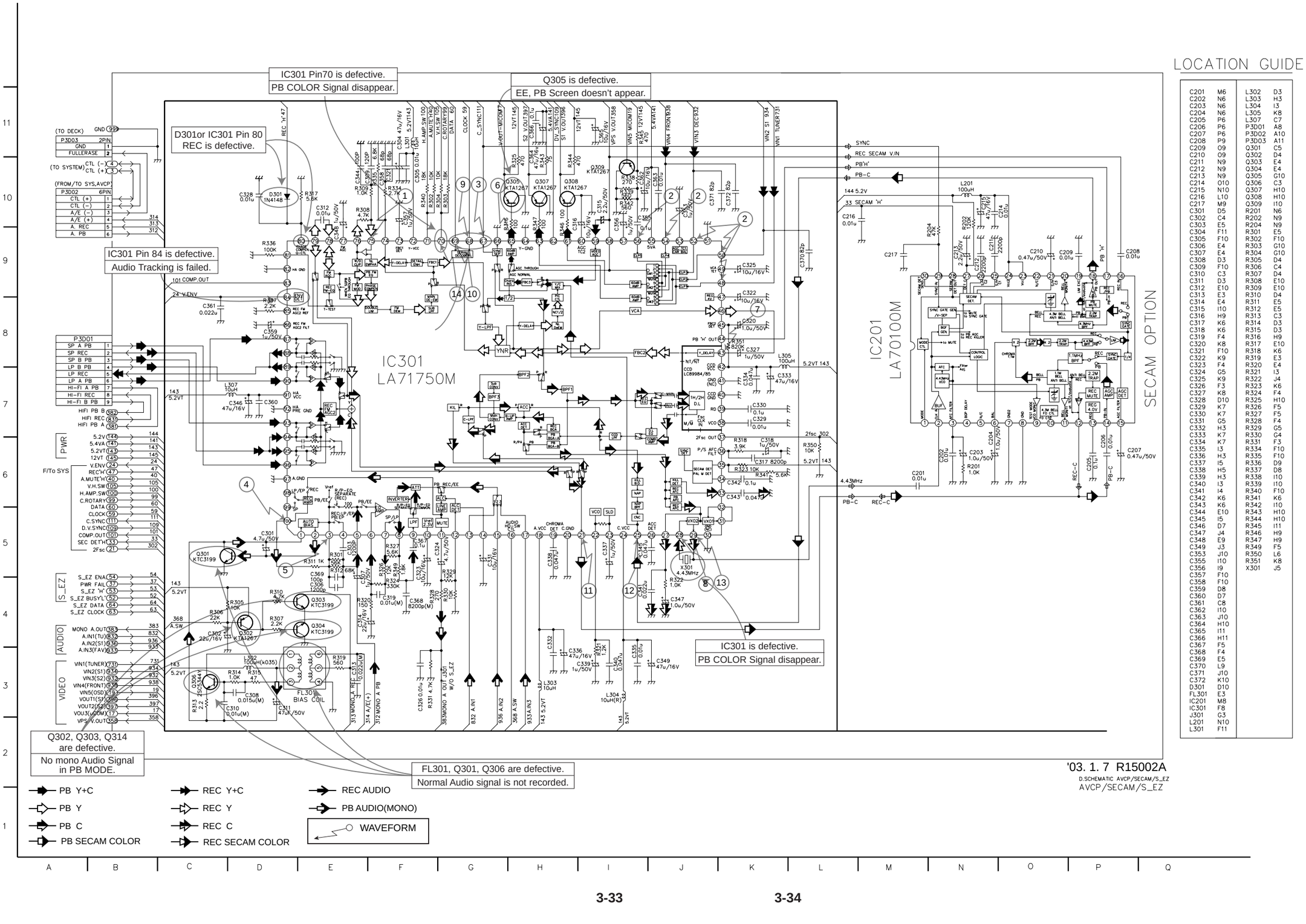
'03. 1. 7 R15004A

D'SCHEMATIC TU.IF/NICAM/VPS

EE MODE(VIDEO)

TU MODE (AUDIO)

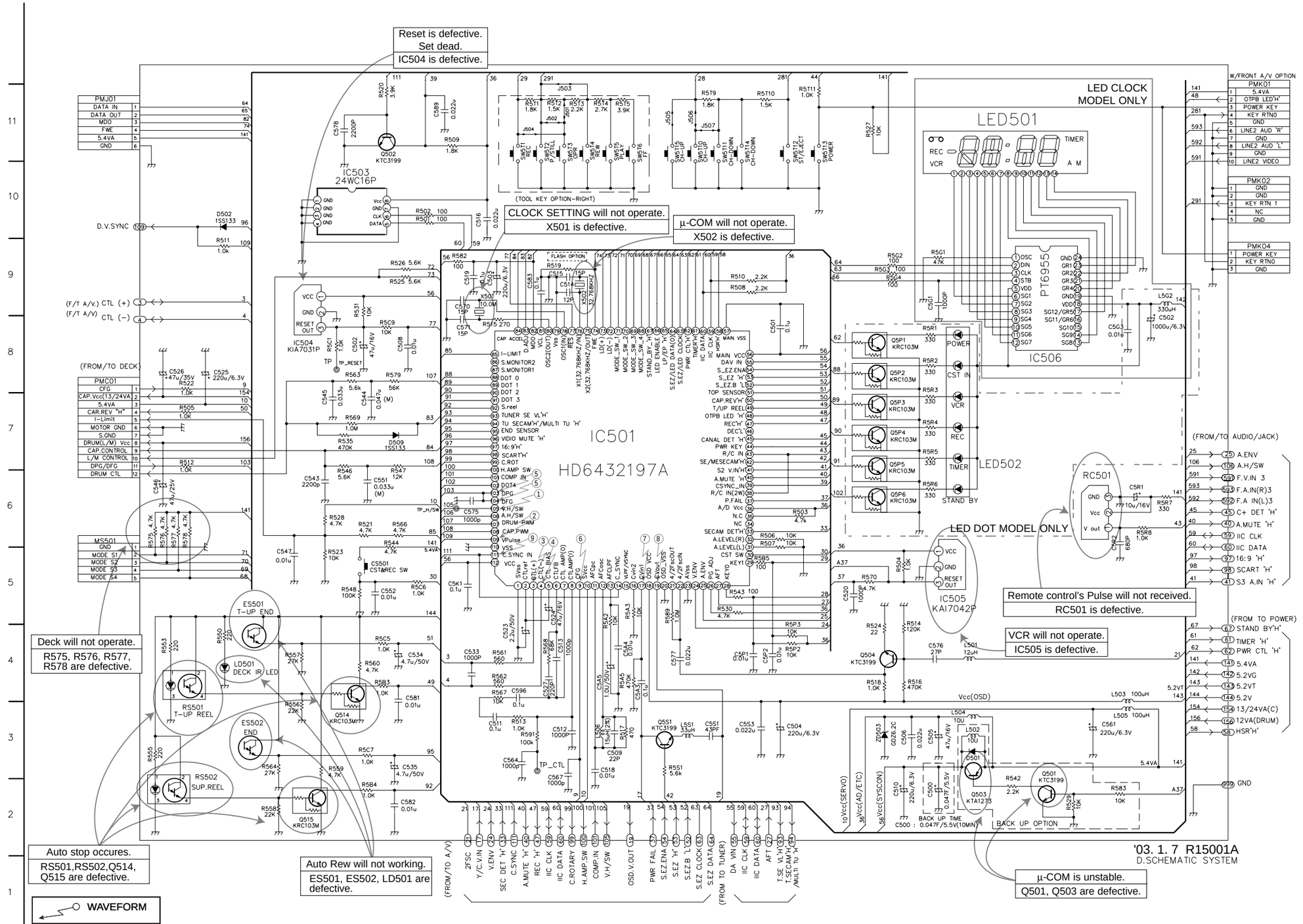
3. A/V, SECAM, VPS Circuit Diagram



LOCATION GUIDE

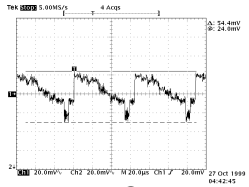
C201	M6	L302	D3
C202	N6	L303	H3
C203	N6	L304	I3
C204	N6	L305	K8
C205	P6	L307	C7
C206	P6	P3D01	A8
C207	P6	P3D02	A10
C208	P9	P3D03	A11
C209	O9	Q301	C5
C210	O9	Q302	D4
C211	N9	Q303	E4
C212	N9	Q304	E4
C213	N9	Q305	G10
C214	O10	Q306	C3
C215	N10	Q307	H10
C216	L10	Q308	H10
C217	M9	Q309	I10
C301	D5	R201	N6
C302	C4	R202	N9
C303	E5	R204	N9
C304	F11	R301	E5
C305	F10	R302	F10
C306	E4	R303	G10
C307	E4	R304	G10
C308	D3	R305	D4
C309	F10	R306	C4
C310	C3	R307	D4
C311	D3	R308	E10
C312	E10	R309	E10
C313	E3	R310	D4
C314	E4	R311	E5
C315	I10	R312	E5
C316	H9	R313	G3
C317	K6	R314	D3
C318	K6	R315	D3
C319	F4	R316	H9
C320	K8	R317	E10
C321	F10	R318	K6
C322	K9	R319	E3
C323	F4	R320	E4
C324	G5	R321	I3
C325	K9	R322	J4
C326	F3	R323	K6
C327	K8	R324	F4
C328	D10	R325	H10
C329	K7	R326	F5
C330	K7	R327	F5
C331	G5	R328	F4
C332	H3	R329	G5
C333	K7	R330	G4
C334	K7	R331	F3
C335	I3	R334	F10
C336	H3	R335	F10
C337	I5	R336	D9
C338	H5	R337	D8
C339	H3	R338	I10
C340	I3	R339	I10
C341	I4	R340	F10
C342	K6	R341	K6
C343	K6	R342	I10
C344	E10	R343	H10
C345	I5	R344	H10
C346	D7	R345	I11
C347	J4	R346	H9
C348	E9	R347	H9
C349	J3	R349	F5
C353	J10	R350	L6
C355	I10	R351	K8
C356	I9	X301	J5
C357	F10		
C358	F10		
C359	D8		
C360	D7		
C361	C8		
C362	I10		
C363	J10		
C364	H10		
C365	I11		
C366	H11		
C367	F5		
C368	F4		
C369	E5		
C370	L9		
C371	J10		
C372	K10		
D301	D10		
FL301	E3		
IC201	M8		
IC301	F8		
J301	Q3		
L201	N10		
L301	F11		

4. System Circuit Diagram

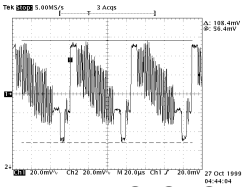


WAVEFORM & VOLTAGE SHEET

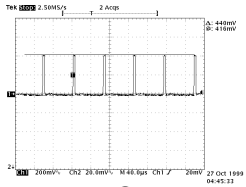
* IC301 Oscilloscope Waveform

① 

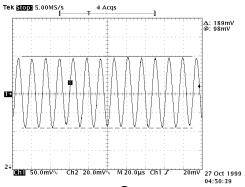
IC301 Pin ⑮
PB mode
500mvp-p

② 

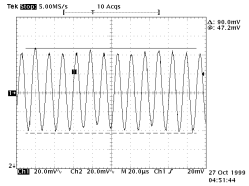
IC301 Pins ㊽ ,㊿ , ㊿㊷
㊿㊹ , ㊿㊻
Video in 1Vp-p

③ 

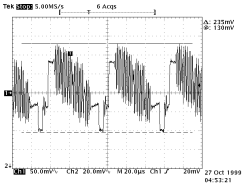
IC301 Pin ㊼
PB/REC mode
4.0Vp-p

④ 

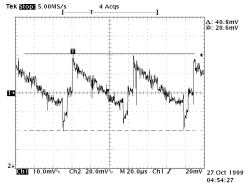
IC301 Pin ①⓪⓪
REC mode
1.1Vp-p

⑤ 

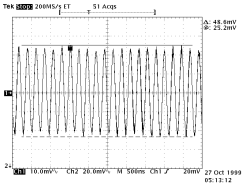
IC301 Pin ③
REC mode
2.0Vp-p

⑥ 

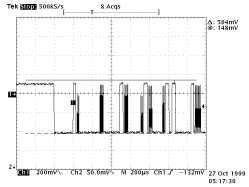
IC301 Pin ㊺
PB mode
2.02Vp-p

⑦ 

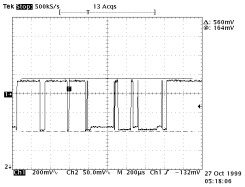
IC301 Pin ㊸
PB mode
400mVp-p

⑧ 

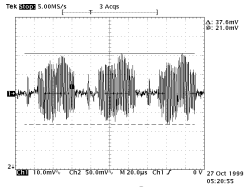
IC301 Pin ㉘
PB mode
400mVp-p

⑨ 

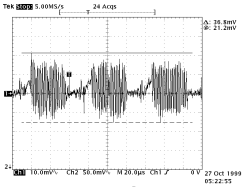
IC301 Pin ㊽
PB/REC mode
5Vp-p

⑩ 

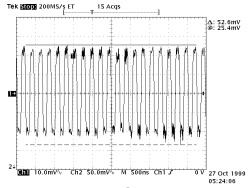
IC301 Pin ㊾
PB/REC mode
5Vp-p

⑪ 

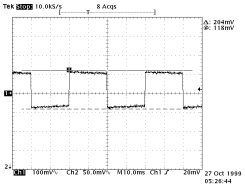
IC301 Pins ㉑
REC mode
340mVp-p

⑫ 

IC301 Pins ㉕
PB mode
300mVp-p

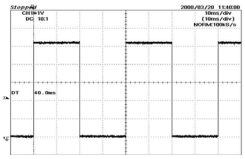
⑬ 

IC301 Pin ㉙
PB mode
400mVp-p

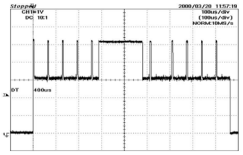
⑭ 

IC301 Pin ㊿
PB mode
3.6Vp-p

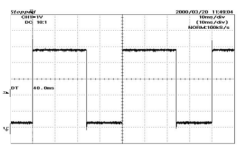
* IC501 Waveform Photographs

① 

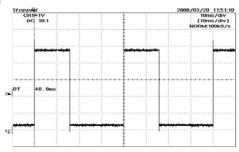
V.HSW
(IC501 Pin 105)
1V/10mS
REC/PB MODE

② 

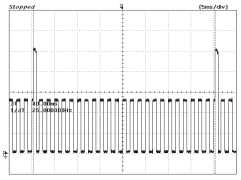
DV.SYNC
(IC501 PIN 109)
1V/100uS
QUE/REV MODE

③ 

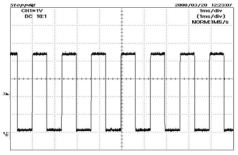
CTL(+)
(IC501 Pin 3)
1V/10mS

④ 

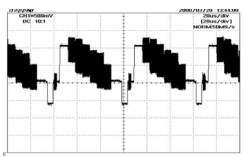
CTL(-)
(IC501 Pin4)
1V/10mS

⑤ 

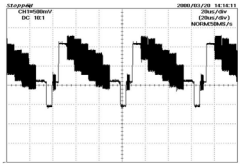
DFG/FG
(IC501 PIN 103,104)
1V/10mS
REC/PB MODE

⑥ 

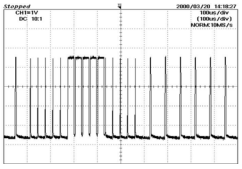
CFG
(IC501 Pin9)
1V/10mS

⑦ 

V.IN
(IC501 Pin 17)
500mV/20uS

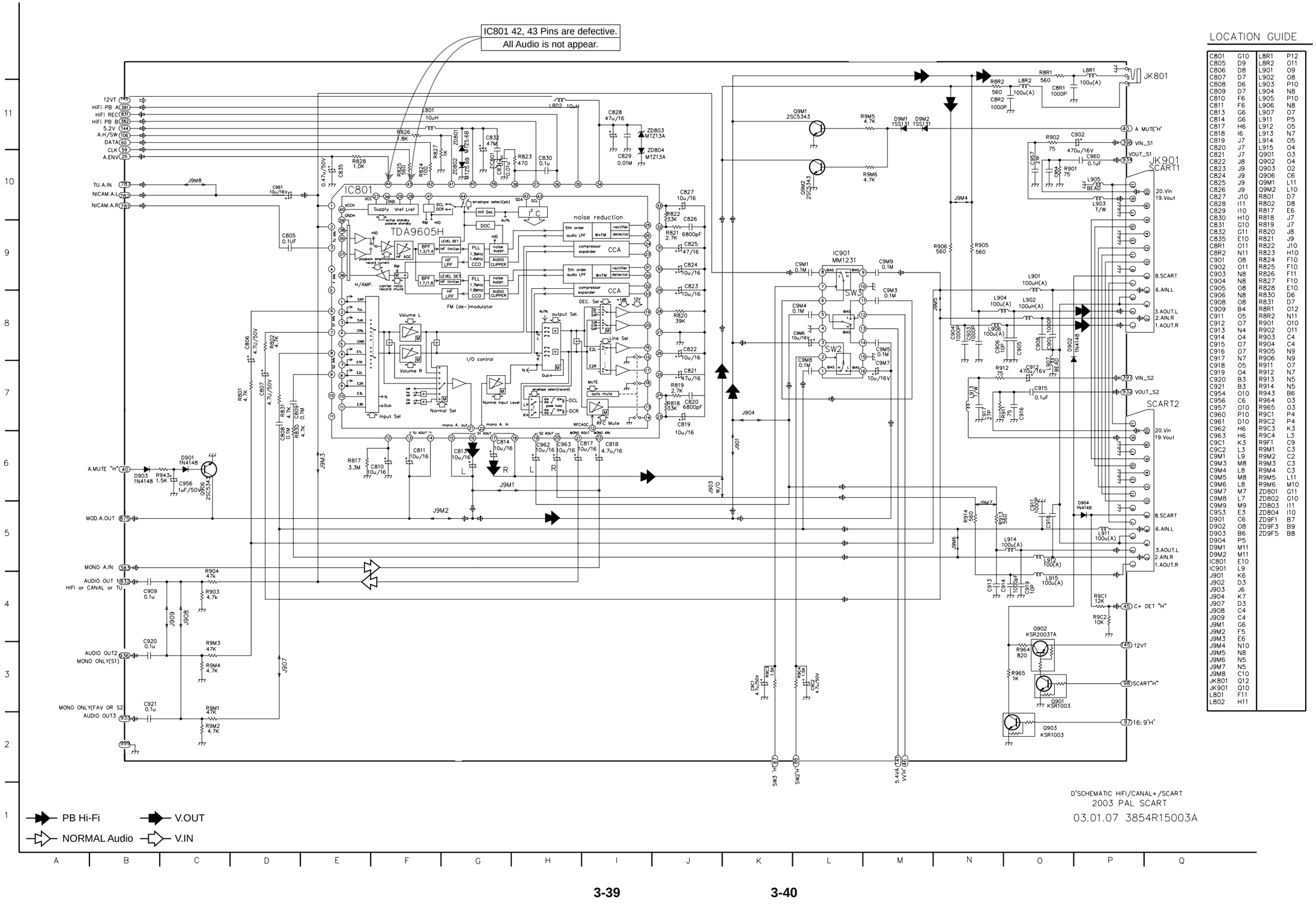
⑧ 

V.OUT
(IC501 Pin 19)
500mV/20uS
EE/PB MODE

⑨ 

C.SYNC
(IC501 Pin 111)
1.0V/100uS
EE/PB MODE

5. Hi-Fi, SCART Circuit Diagram



• CIRCUIT VOLTAGE CHART

MODE / PIN NO.	EE	PB	REC
IC103			
R	2.45	2.45	2.44
A	-0.03	-0.03	0
K	4.05	4.06	4.07
IC201			
1	2.52	2.52	2.52
2	2.4	2.41	2.41
3	0	3.35	3.37
4	0	2.59	0
5	0	0	0
6	2.8	3.72	0
7	0	0	0
8	0	0	0
9	3.04	3.02	3.04
10	2.53	2.51	0
11	2.1	2.08	2.19
12	3.32	1.96	3.25
13	4.01	4.01	4.01
14	2.55	2.54	2.56
15	3.06	1.94	3.06
16	6.2	3.2	3.22
17	2.34	4.25	0.22
18	0.13	3.44	0.13
19	2.23	2.21	2.22
20	2.08	2.22	2.06
21	2.27	2.4	2.28
22	1.42	1.43	0
23	5.05	5.02	5.06
24	5.05	5.02	5.06
25	2.31	2.07	2.37
26	2.3	2.02	2.38
27	2.09	2.08	2.11
28	0.18	0.19	0.18
29	0.48	0.26	0.41
30	2.08	2.07	2.11
IC402			
1	0	0	0
2	2.86	2.86	2.85
3	5.15	5.16	0
4	5.29	5.29	5.29
5	4.94	4.94	4.94
6	5.29	5.29	5.29
7	5.29	5.2	5.29
8	2.57	2.57	2.57
9	0	0	0
10	5.29	5.29	5.29
11	2.41	2.41	2.42
12	2.1	2.1	2.08
13	0	5..29	5.29
14	5.26	5.26	5.25
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0

MODE / PIN NO.	EE	PB	REC
IC301			
1	5.15	5.14	1.7
2	0.02	0.03	0.75
3	2.29	2.29	0
4		1.46	0.5
5	2.28	2.26	2.47
6	2.29	2.28	2.29
7	2.28	2.28	2.27
8	2.27	2.27	2.27
9	2.26	2.26	3.05
10	2.29	2.29	2.28
11	2.37	2.39	2.28
12	0	0.02	0.11
13	2.26	2.3	2.28
14		0.02	
15	2.26	2.26	2.29
16	5.17	0.16	5.05
17	2.26	2.26	2.27
18	5.17	5.17	5.14
19	4.24	4.25	3.07
20	0	0	0
21	3.36	1.96	3.25
22	3.07	3.06	3.06
23	3.06	3.03	3.05
24	5.16	5.16	5.13
25	0.13	3.44	5.13
26	1.44	1.82	0
27	2.07	2.1	1.42
28	4.23	4.21	4.18
29	2.83	2.83	2.9
30	0	0	0
31	4.7	4.7	4.69
32	4.7	4.7	4.69
33	2.85	2.06	2.07
34	0.33	0.31	0.31
35	2.17	2.16	2.16
36	3.35	3.35	3.35
37	2.09	2.11	2.09
38	1.99	2.03	2.02
39	9.45	9.43	9.39
40	0	0	0
41	0	0	0
42	5.17	5.16	5.14
43	2.4	2.42	2.39
44	2.34	4.42	0.08
45	2.33	2.46	2.46
46	2.69	2.67	2.68
47	4.17	4.17	4.17
48	2.35	2.37	2.33
49	3.18	3.18	3.18
50	1.97	1.97	1.97
51	0	0	0
52	1.97	1.97	1.97
53	2.34	2.35	2.35
54	1.97	1.99	1.99

MODE / PIN NO.	EE	PB	REC
55	5.24	5.24	5.24
56	2.25	2.31	2.29
57	2.02	2.14	1.99
58	2.37		2.4
59	2.94	2.95	2.93
60	1.42	1.55	1.38
61	1.72	1.85	2.05
62	0.09	0.11	0.11
63	1.75	1.84	
64	0	0	0
65	1.85	1.85	1.81
66	0	0	0
67	0.	0.44	0.4
68	4.79	4.91	4.81
69	4.75	4.81	4.79
70	5.27	2.69	2.69
71	0.01	0	0.01
72	5.13	5.11	5.09
73		1.98	2.21
74	2.55	2.63	2.53
75	2.46	2.63	2.45
76	2.47	0.77	2.45
77	1.59	1.59	1.49
78	2.7	3.39	2.69
79	2.02	1.91	2.52
80	1.06	1.06	4.72
81	1.11	1.12	1.11
82	0	0	0
83	5.13	1.47	1.51
84	0.46	2.43	1.75
85	0	0	1.36
86		0	2.03
87	0	0.72	0.7
88	0.71	0.72	0.7
89	0.71	0.72	0.7
90	0.71	0.72	0.7
91	5.17	5.16	5.11
92	0	0	0
93	1.95	1.93	0.73
94	1.95	1.93	0.72
95	1.95	1.93	0.72
96	1.95	1.93	4.33
97	0	0	0
98	2.29	2.29	2.4
99	0	2.29	2.4
100	2.29	2.29	2.53
IC501			
1	0	0	0
2	2.39	2.57	2.57
3	2.57	2.57	3.04
4	2.57	2.57	2.1
5	2.57	2.57	2.57
6	2.56	2.57	2.57
7	2.58	2.59	2.58
8	2.55	2.55	2.55

MODE / PIN NO.	EE	PB	REC
9	4.62	2.31	2.31
10	4.85	5.16	5.016
11	1.89	1.91	1.9
12	1.89	1.9	1.89
13	2.61	2.5	2.49
14	0.4	0.4	0.4
15	0.08	0.1	0.56
16	1.99	1.91	1.98
17	2.39	2.34	2.31
18	5.14	5.14	5.11
19	2.41	2.37	2.33
20	0	0	0
21	2.47	2.47	0
22	2.46	2.46	0
23	0	0	0
24	0.51	2.47	0.01
25	2.81	2.88	2.8
26	5.27	2.28	5.28
27	2.46	2.5	2.54
28	5.27	5.28	5.28
29	5.22	5.27	5.27
30	0	5.01	0.05
31	0.17		1.9
32	0.12		
33	0.18	0.18	0.18
34	0.31	0.3	0.43
35	5.27	5.28	5.28
36	5.28	5.29	5.28
37	4.93	4.94	4.94
38	4.88	4.88	4.87
39	2.29	2.29	2.28
40	0	0	0
41	0	0	0
42	0	0	0
43	4.88	4.88	4.87
44	5.24	5.25	5.24
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0.01	5.28	
50	5.25	0	0
51	4.48	0.04	0.02
52	5.28	5.29	5.29
53	0	0	0
54	5.25	5.26	5.27
55	5.27	5.29	0.08
56	5.27	5.28	5.28
57	0	0	0
58	0	0	0
59	4.91	4.92	4.79
60	4.91	4.91	4.79
61	5.17	5.18	5.18
62	5.17	5.19	5.18
63	2.84	2.83	2.86

MODE / PIN NO.	EE	PB	REC
64	5.14	5.14	5.15
65	0.01	0.01	0.02
66	5.1	5.11	5.11
67	0.83	0.83	0.89
68	0.01	5.3	5.3
69	0.01	5.3	5.3
70	5.29	5.3	5.3
71	5.29	0	0.01
72	0.03	0.03	0.04
73	5.24	5.23	5.22
74	0	0	0
75	1.49	1.5	1.5
76	1.3	1.4	1.21
77	5.27	5.27	5.27
78	2.55	2.53	2.54
79	0	0	0
80	5.29	2.58	2.58
81	3.25	3.25	3.25
82	5.28	5.28	5.28
83	0	2.7	2.69
84	0	2.77	2.77
85	0	3.55	3.55
86	2.65	2.68	2.86
87	0	3.3	3.21
88	0	0	0
89	0	0	0
90	0	0	0
91	0	0	0
92	0.95	5.16	
93	0	0	0
94	0	0	0
95	0.29	0.1	0.07
96	0	0	0
97	0	0	0
98	5.26	5.26	5.25
99	0	2.7	0
100	0.01	0	0
101	0.7	0.13	0.57
102	0	0	0
103	0.12	1.39	1.39
104	0.12	1.39	1.39
105	0	2.7	0
106	0	2.64	5.12
107	0	2.75	2.74
108	0	2.78	2.77
109	0.05	0.05	0.05
110	0	0	0
111	4.2	0.4	0.4
112	5.29	5.28	5.27
IC503			
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	5.01	4.95	4.79

MODE / PIN NO.	EE	PB	REC
6	5.01	4.95	4.8
7	0	0	0
8	5.29	5.29	5.28
IC504			
1	5.28	5.28	5.28
2	0	0	0
3	5.28	5.28	5.28
IC505			
1	5.28	5.28	5.28
2	0	0	0
3	4.87	4.87	4.87
IC506			
1	2.22	2.12	2.14
2	5.16	5.15	2.15
3	2.85	2.86	2.85
4	5.11	5.11	5.11
5	4.58	4.38	4.44
6	1.78	2.15	1.41
7	2.11	2.14	2.58
8	2.64	2.62	2.6
9	1.95	2.04	1.51
10	1.52	1.62	1.52
11	1.96	2.27	1.41
12	1.96	1.79	1.95
13	0.61	0.59	0.64
14	1.41	1.38	1.43
15	0.53	0.48	0.53
16	0.53	0.48	0.54
17	1.14	1.13	1.13
18	4.49	4.41	4.47
19	0	0	0
20	1.13	1.15	1.2
21	1.14	1.13	1.21
22	1.12	1.13	1.2
23	1.24	1.25	1.35
24	0	0	0
IC7V1			
1	0	0	0
2	5.01	4.94	4.79
3	5.01	4.94	4.78
4	0	0	0
5	5.28	5.28	0.39
6	5.28	5.28	
7	0	0	2.66
8	0	0	0
9	0.01	0.01	2.31
10	0	0	2.36
11	0.01	0	2.31
12	1.56	1.56	1.56
13	0.99	0.99	1.39
14	5.28	5.29	5.28
IC801			
1	2.84	2.91	2.7
2	2.92	2.91	2.81
3	2.91	2.9	2.81

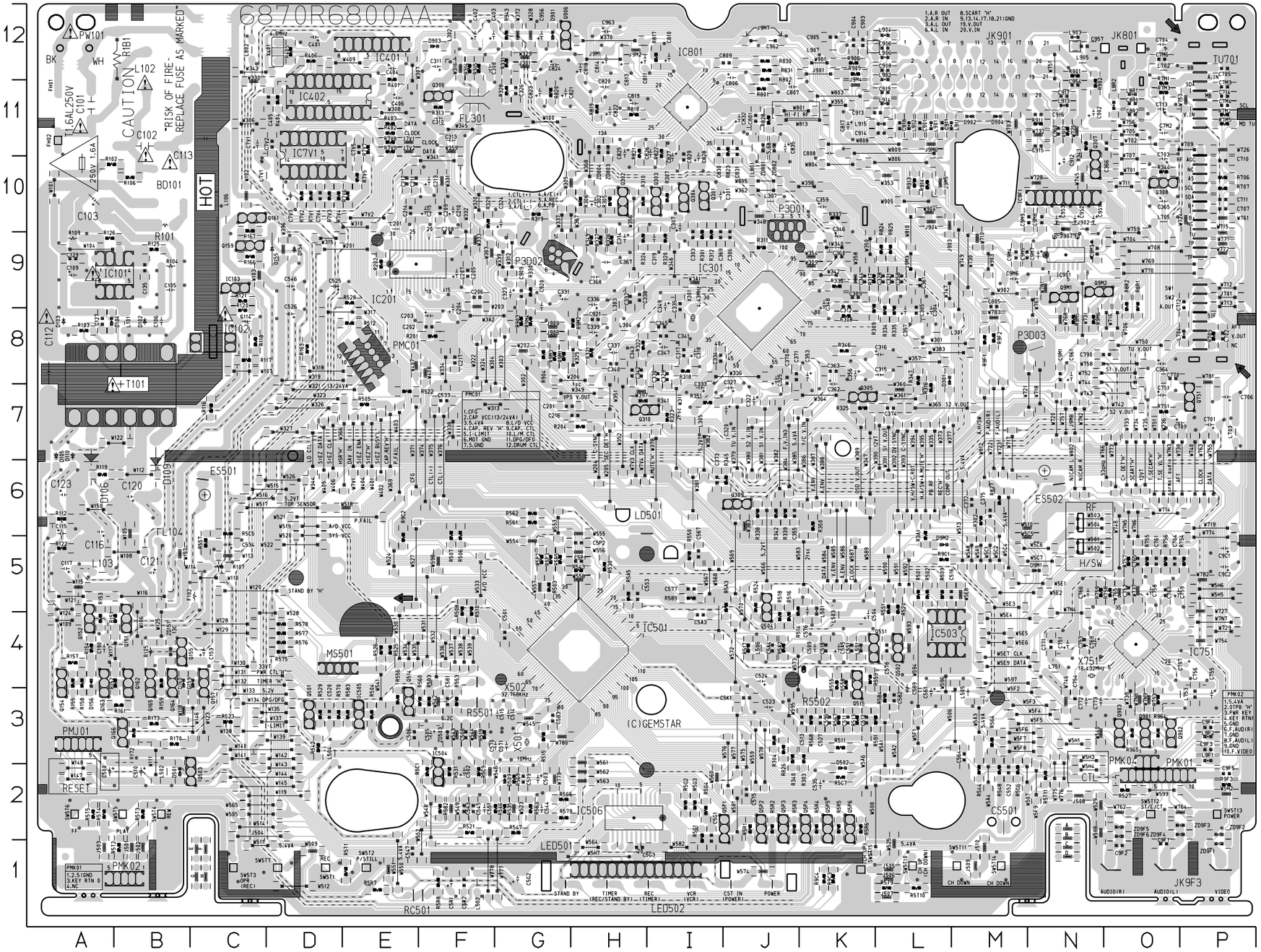
MODE / PIN NO.	EE	PB	REC
4	2.82	2.81	2.68
5	2.8	2.86	2.67
6	2.8	2..86	2.66
7	2.79	2.85	2.65
8	2.78	2.85	2.65
9	2.79	2.84	2.66
10	2.79	2.84	2.66
11	2.77	2.83	2.65
12	2.76	2.82	2.64
13	2.71	2.75	2.59
14	2.49	2.51	2.33
15	2.48	2.51	2.32
16	2.64	2.67	2.49
17	2.64	2.68	2.5
18	1.48	2.57	2.32
19	2.63	2.67	2.5
20	2.6	2.63	2.5
21	2.57	2.59	2.47
22	2.66	2.86	2.55
23	2.63	2.64	2.51
24	2.5	2.5	2.39
25	2.52	2.53	2.4
26	2.36	2.37	2.27
27	0.01	0	0
28	2.51	2.47	2.41
29	2.6	2.57	2.46
30			
31	2.34	2.41	1.38
32	0.03	0.02	-0.07
33	0.03	0.04	-0.06
34	12.6	12.5	12.57
35	3.35	3.31	2.89
36	3.29	3.3	2.9
37	3.29	3.3	2.9
38	3.55	3.56	3.42
39	0	0	0.01
40	5.2	5.2	5.21
41	2.27	2.29	2.5
42	4.96	4.98	4.91
43	5.05	5.06	4.97
44	2.8	2.79	2.69
IC751			
1	5.14	5.15	5.15
2	1.51	1.51	1.51
3	1.51	1.51	1.51
4	0	0	0
5	2.47	2.48	2.48
6	2.47	2.48	2.48
7	0.54	0.5	0.46
8	0	0	0.45
9	0	0	0.45
10	0	0	0
11	5.16	5.16	5.16
12	4.91	4.86	4.79
13	4.9	4.8	4.79

MODE / PIN NO.	EE	PB	REC
14	2.58	0.51	0.57
15	2.58	0.5	0
16	2.41	0.51	0.57
17	0.53	0.53	0
18	0.54	0.51	0.58
19	5.13	5.14	5.14
20	0	0	0
21	0.53	0.51	0
22	5.16	5.16	5.16
23	0	0.02	0
24	0	0.02	0
25	0	0	0
26	0	0.05	0
27	0.05	0.05	0
28	0	0	0
29	0	0	2.8
30	2.8	2.8	2.8
31	2.79	2.79	2.79
32	0	0.02	0
33	5.16	5.14	5.15
34	4.2	4.2	4.21
35	0	0	0
36	2.8	2.8	2.8
37			0
38			0
39			0
40	2.84	2.84	2.79
41	2.85	2.83	2.79
42	2.59	2.59	2.59
43	2.31	2.31	2.3
44	3.3		0

Tran-sistor	EE Mode			PB Mode			REC Mode		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q151	4.55	5.3	5.24	5.34	4.54	5.24	5.3	4.55	5.24
Q152	5.31	4.52	5.22	5.31	4.52	5.22	5.3	4.51	5.22
Q154	32.99	32.34	32.97	33.53	32.89	33.5	33.76	33.12	33.72
Q155	12.73	13.4	14.05	12.68	13.35	13.77	12.76	13.42	13.98
Q157	0.03	0.84	4.38	0.03	0.84	4.38	-0.03	0.84	4.38
Q159	29.84	29.78	13.21	29.79	29.8	12.48	30.14	30.13	12.73
Q161	0.03	0	29.82	0.03	0	29.8	-0.03	0	30.11
Q162	0.02	0.69	0	-0.02	0.69	0	-0.02	0.69	0
Q163	0.03	5.18	0.03	0.03	5.18	0.03	-0.03	5.18	0.03
Q164	-0.03	4.38	-0.01	-0.03	4.38	-0.01	-0.03	4.38	0
Q165	14.06	-0.01	14.04	13.74	-0.01	13.71	13.95	-0.01	13.95
Q166	4.4	5.3	5.11	5.3	4.41	5.13	5.3	4.4	5.1
Q301	0	0.01	5.15	0	0	5.15	0	0.75	1.69
Q302	5.18	5.18	-0.42	5.18	4.52	5.12	5.14	5.13	-24.71
Q303	0.01	-0.42	0	0	0.69	0.01	-18.22	-24.85	0.01
Q304	0.01	-0.4	0	0	0.71	0	-18.22	-24.7	0
Q305	2.01	1.29	0	2.53	1.83	0	2.5	1.81	0
Q306	5.14	5.19	5.19	5.19	5.16	5.19	1.9	2.14	4.89
Q307	2.69	1.98	0	2.69	1.98	0	2.64	1.93	0
Q308	2.66	1.98	0	2.63	1.96	0	2.6	1.93	0
Q309	3.09	2.41	0	3.05	2.37	0	3.01	2.33	0
Q501	0	0.67	0.01	0	0.67	0.01	0	0.67	0.01
Q502	0	0.71	0.01	0	0.22	2.33	0	0.23	2.29
Q503	5.3	4.61	5.28	5.3	4.61	5.28	5.3	4.61	5.28
Q504	0	0.14	2.69	0.05	0.63	2.65	0.05	0.67	2.67
Q5S1	0.43	0	1.61	2.22	0	2.53	1.92	0	2.5
Q514	0	5.09	0.01	0			0		
Q515	0	0	5.16	0			0		
Q906	0	0.12	1.93	0	0.07	2.37	0	0.13	2.4
Q901	0	5.26	0.01	0	5.25	0.01	0	5.25	0.01
Q7S1	0	0	1.32	0	0		0	0	0.98
Q902	12.73	0.01	12.73	12.66	0.01	12.66	12.72	0.01	12.71
Q903	0	0	12.72	0	0	12.64	0	0	12.71

PRINTED CIRCUIT BOARD DIAGRAMS

1. MAIN P.C.Board



(Solder Side)

NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

LOCATION GUIDE

BD101	B10	C339	H8	C570	G3	C814	H12	D160	B4	L506	J4	Q751	P7	R335	L8
C101	A11	C340	H8	C571	G3	C817	K11	D301	L8	L502	F1	Q901	O3	R336	K9
C102	B11	C341	I8	C575	J2	C818	H12	D501	B2	L551	K4	Q902	O3	R337	K10
C103	A10	C342	H8	C576	K5	C819	H11	D502	K2	L702	O12	Q903	O3	R338	J6
C105	B9	C343	H8	C577	I5	C820	H11	D509	G2	L703	P7	Q906	G12	R339	J6
C106	B8	C344	K9	C578	L4	C821	G11	D901	G12	L704	P8	Q9M1	N9	R340	J3
C109	A9	C345	I8	C581	E3	C822	H11	D902	M11	L705	O10	Q9M2	N9	R341	H7
C112	A8	C346	K9	C582	L3	C823	G11	D903	F12	L751	N4	R101	B10	R342	J6
C113	C11	C347	I8	C583	G3	C824	G12	D904	M11	L753	P3	R102	A10	R343	N11
C114	C9	C348	K9	C589	L3	C825	H11	D9M1	N5	L801	J11	R104	B9	R345	J6
C115	A6	C349	I9	C596	K3	C826	I11	D9M2	L5	L801	J11	R104	B9	R345	J6
C116	A6	C353	K8	C5A3	J4	C827	I10	E5501	C7	L802	C12	R105	B4	R346	K8
C117	A5	C355	J6	C5A4	J4	C828	I10	E5502	N6	L881	O11	R106	B10	R347	L8
C120	B6	C356	K8	C5A5	K4	C829	I10	F102	C5	L882	O11	R107	C5	R349	H9
C121	B5	C357	L8	C5G1	I2	C830	I11	FH01	A11	L901	L11	R109	A9	R350	K6
C123	A6	C358	L9	C5G2	G1	C831	J11	FH02	A6	L902	L12	R112	A6	R351	I7
C127	A8	C359	K10	C5G3	H1	C832	J11	FL301	F11	L903	N12	R116	C7	R3A1	L6
C129	A9	C360	K9	C5K1	J3	C835	J11	IC101	A9	L904	L12	R117	C8	R401	E12
C135	B9	C361	L9	C5P1	H5	C881	O11	IC103	C9	L906	L12	R119	A6	R402	E11
C153	C4	C362	K7	C5P2	H5	C882	O11	IC103	C9	L906	L12	R119	A6	R403	E11
C190	A4	C363	K8	C5R1	F1	C901	L11	IC401	E12	L907	K12	R120	C8	R404	D11
C201	G7	C364	K8	C5R2	F1	C902	L11	IC402	E12	L911	N11	R121	C9	R405	D12
C202	F8	C365	O10	C551	K4	C903	K12	IC503	M4	L912	L11	R122	A5	R406	D12
C203	F8	C366	O11	C553	H5	C904	K12	IC504	F2	L913	N11	R125	B9	R501	L5
C204	F8	C367	H9	C701	P7	C905	K12	IC505	E3	L914	N11	R126	A9	R502	L5
C205	F9	C368	H9	C702	P8	C906	L12	IC7V1	D11	L915	L11	R151	B4	R503	G5
C206	F9	C369	I9	C703	O10	C908	L12	IC9F1	N10	L9F1	P3	R152	B4	R504	E3
C207	F9	C370	J8	C704	O12	C909	O9	J301	G12	L9F2	P3	R153	A4	R505	E7
C208	F9	C371	J8	C705	P12	C911	L11	J501	B1	LD501	I5	R154	A4	R506	F6
C209	F10	C372	M6	C706	P7	C912	N10	J502	B1	LED501	I1	R155	A4	R507	F6
C210	E10	C373	L7	C707	P10	C913	L11	J503	A1	LED502	J1	R156	A4	R508	F5
C211	E10	C374	L7	C709	P7	C914	L11	J504	C2	M5501	D5	R158	A4	R509	L5
C212	E10	C375	M6	C710	P10	C915	N11	J505	L1	P3D01	J10	R159	B4	R510	F3
C213	F10	C401	D12	C711	P10	C916	N11	J506	L1	P3D02	O9	R161	B3	R511	K3
C214	E10	C402	F12	C712	P9	C917	N11	J507	L1	P3D03	N8	R163	D8	R512	E8
C215	F10	C403	F12	C713	O11	C918	L11	J508	N2	PMC01	E8	R166	C9	R513	K3
C216	H7	C404	E12	C714	P11	C919	L11	J509	M1	PMJ01	A3	R167	C10	R514	J5
C217	F8	C405	D11	C751	N4	C920	G9	J510	M1	PMK01	O2	R170	B3	R515	G3
C301	I10	C406	D11	C752	O5	C921	H8	J701	P9	PMK02	B1	R172	A3	R516	J4
C302	H10	C500	A2	C753	N4	C954	N11	J7V1	E11	PMK04	O3	R173	B3	R517	J4
C303	I9	C501	G6	C754	N3	C956	G12	J7V2	E11	PW101	A12	R181	B12	R518	J4
C304	L8	C502	F2	C755	P3	C957	N12	J901	M12	Q151	B4	R201	F8	R519	F3
C305	L8	C503	G2	C756	P3	C960	N11	J902	N10	Q152	A4	R202	E9	R520	L5
C306	J9	C504	K4	C757	P4	C961	N8	J903	L10	Q154	A4	R204	H7	R521	F2
C307	I10	C505	F3	C758	O5	C962	J12	J904	L10	Q155	B4	R301	I9	R522	E7
C308	F12	C506	E3	C759	O5	C963	H12	J907	N10	Q157	C4	R302	M6	R523	C3
C309	K9	C508	F3	C760	O5	C9C1	P5	J908	G8	Q159	C9	R303	K3	R524	J5
C310	F11	C509	K4	C761	O5	C9C2	P5	J909	G8	Q161	C10	R304	J3	R525	J4
C311	F12	C510	B2	C764	O5	C9F1	O1	J9M1	H12	Q162	B4	R305	H10	R526	E4
C312	K9	C511	K3	C765	O5	C9F2	O1	J9M2	H12	Q163	A4	R306	H10	R527	O2
C313	I11	C512	K3	C766	O5	C9F3	P3	J9M3	N12	Q164	B4	R307	I10	R528	M5
C314	H9	C513	K3	C769	N4	C9F4	P3	J9M4	K11	Q165	B4	R308	K8	R529	D3
C315	L8	C514	G3	C770	O8	C9F5	P2	J9M5	L10	Q166	B3	R309	K8	R530	H5
C316	L8	C515	G3	C771	N5	C9F6	P2	J9M6	M9	JK901	M12	Q301	O12	R531	F2
C317	I8	C516	M5	C772	N3	C9M3	N9	J9M7	J12	Q302	N10	Q302	I10	R532	J6
C318	I8	C518	K4	C773	N3	C9M4	M9	J9M8	N7	Q303	I10	Q303	I10	R533	J6
C319	I9	C519	G2	C780	O8	C9M5	M9	JK801	O12	Q304	J12	Q304	J12	R534	J6
C320	J7	C520	D3	C7M2	O11	C9M6	M9	JK901	M12	Q305	K7	Q305	K7	R535	G2
C321	L9	C523	J3	C7M3	P11	C9M7	N9	JK9F3	P1	Q306	F11	Q306	F11	R536	K9
C322	J7	C524	J4	C7M4	O12	C9M8	N10	L101	B8	Q307	N10	Q307	N10	R537	K10
C323	G9	C525	D9	C7M6	O12	C9M9	N10	L102	B12	Q308	O10	Q308	O10	R538	J6
C324	G10	C526	D8	C751	O7	C9S1	N10	L103	A5	Q309	J6	Q309	J6	R539	J6
C325	J8	C527	K3	C7V1	O11	C9S2	N10	L104	B6	Q310	H7	Q310	H7	R540	J6
C326	G11	C533	F7	C7V2	O11	C9S3	N10	L106	C10	Q501	D3	Q501	D3	R541	J6
C327	J7	C534	C5	C7V3	O10	CS501	M2	L201	E10	Q502	L4	Q502	L4	R542	J6
C328	L9	C535	K2	C7V4	O10	D102	B8	L301	L8	Q503	K4	Q503	K4	R543	H5
C329	I8	C543	F2	C7V5	E11	D103	A8	L302	F12	Q504	J5	Q504	J5	R544	M2
C330	I8	C544	G2	C801	J11	D104	A8	L303	H9	Q514	E3	Q514	E3	R545	K4
C331	G9	C545	F2	C805	M3	D105	A7	L304	H8	Q515	K4	Q515	K4	R546	K4
C332	H9	C546	D9	C806	J12	D106	A6	L305	I7	Q5P1	J2	Q5P1	J2	R547	G2
C333	I7	C547	E1	C807	J11	D109	B6	L307	J10	Q5P2	J2	Q5P2	J2	R548	G2
C334	I8	C551	F2	C808	K11	D110	A7	L501	K5	Q5P3	J2	Q5P3	J2	R549	M2
C335	I9	C552	M2	C809	J12	D154	D9	L502	B2	Q5P4	K2	Q5P4	K2	R550	I5
C336	H9	C561	L3	C810	I12	D155	D9	L503	K4	Q5P5	K2	Q5P5	K2	R552	M2
C337	H9	C564	M3	C811	H12	D156	A4	L504	D3	Q5P6	K2	Q5P6	K2	R553	F3
C338	H9	C567	I5	C813	H12	D159	C4	L505	M3	Q551	K4	Q751	P7	R554	M2

R822	J11	R569	G2	R570	D3	R591	L3	R746	K8	R5A2	J4	R5A3	J5	R5A5	H5
R823	I11	R824	L9	R825	L9	R826	J3	R827	M6	R828	J11	R830	J12	R831	J12
R8R1	O9	R8R2	O9	R901	N12	R902	N11	R903	G8	R904	G8	R905	K12	R906	K12
R911	N11	R912	N11	R913	L10	R914	L10	R964	O3	R965	O3	R9C1	L5	R9C2	E5
R9C3	K1	R9C4	K1	R9F1	M8	R9F2	M8	R9F3	F2	R9M1	G8	R9M2	G8	R9M3	G8
R9M4	G8	R9M5	N8	R9M6	N8	RC501	E1	RC502	K4	RS501	D1	RS502	L1	SW511	M1
SW512	O2	SW513	P2	SW514	M1	SW515	K1	SW516	E1	SW517	D1	SW518	I8	TU701	P12
X301	I8	XA01	D12	X501	G3	X502	G3	X751	N4	ZD501	F3	ZD801	J11	ZD802	J11
ZD803	H11	ZD804	H11	ZD9F1	P1	ZD9F2	P2	ZD9F3	P2	ZD9F4	P2	ZD9F5	O2	ZD9F6	O2

E. & O. E. No. 82963 HR-V200EZ,HR-V205EK,HR-V500EZ,HR-V505EK,HR-V505EZ (VP)-V16A0,A1,D0,D1

SECTION 5
REPLACEMENT PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

BEWARE OF BOGUS PARTS

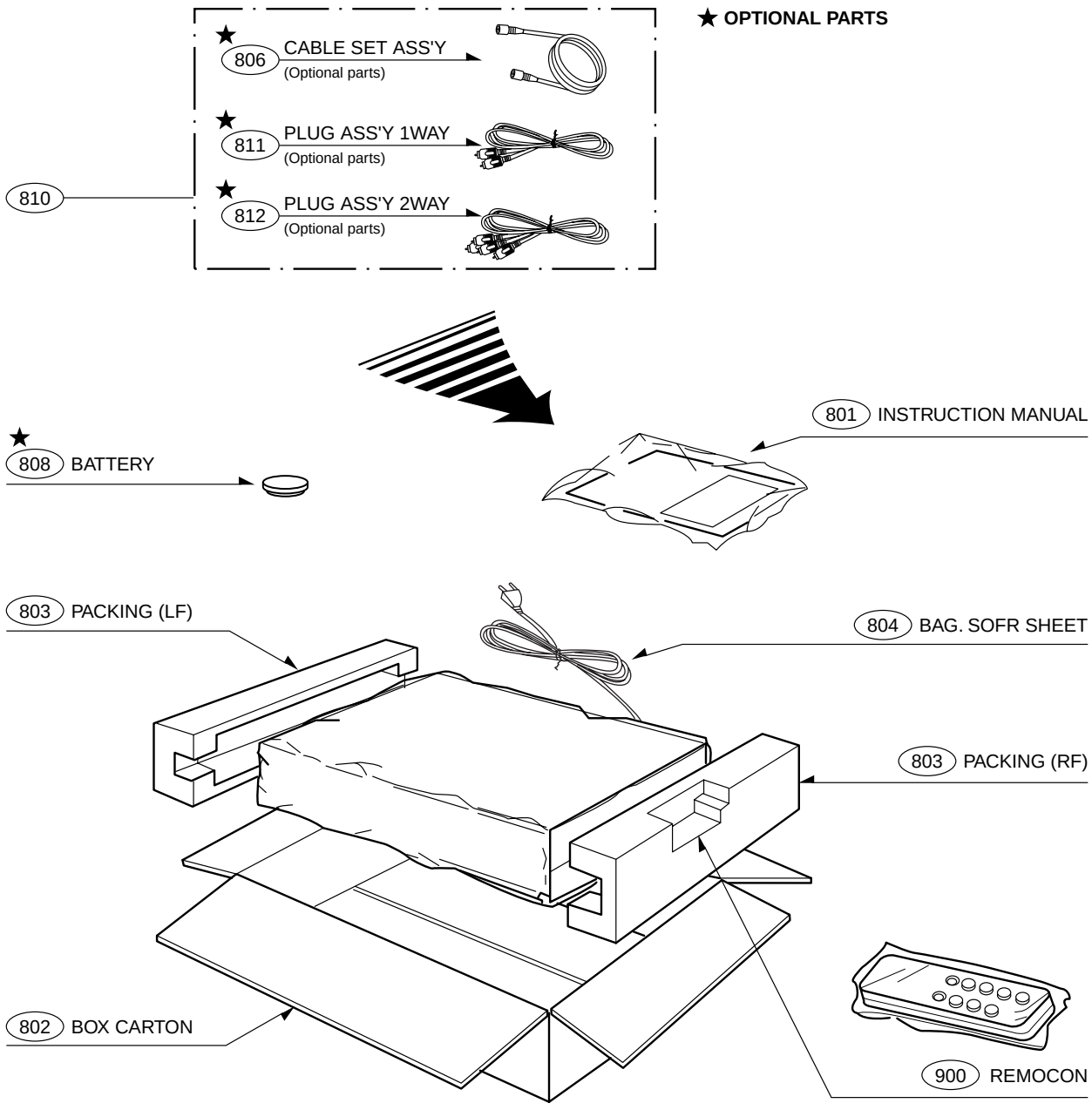
Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

5.1 EXPLODED VIEW

5.1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

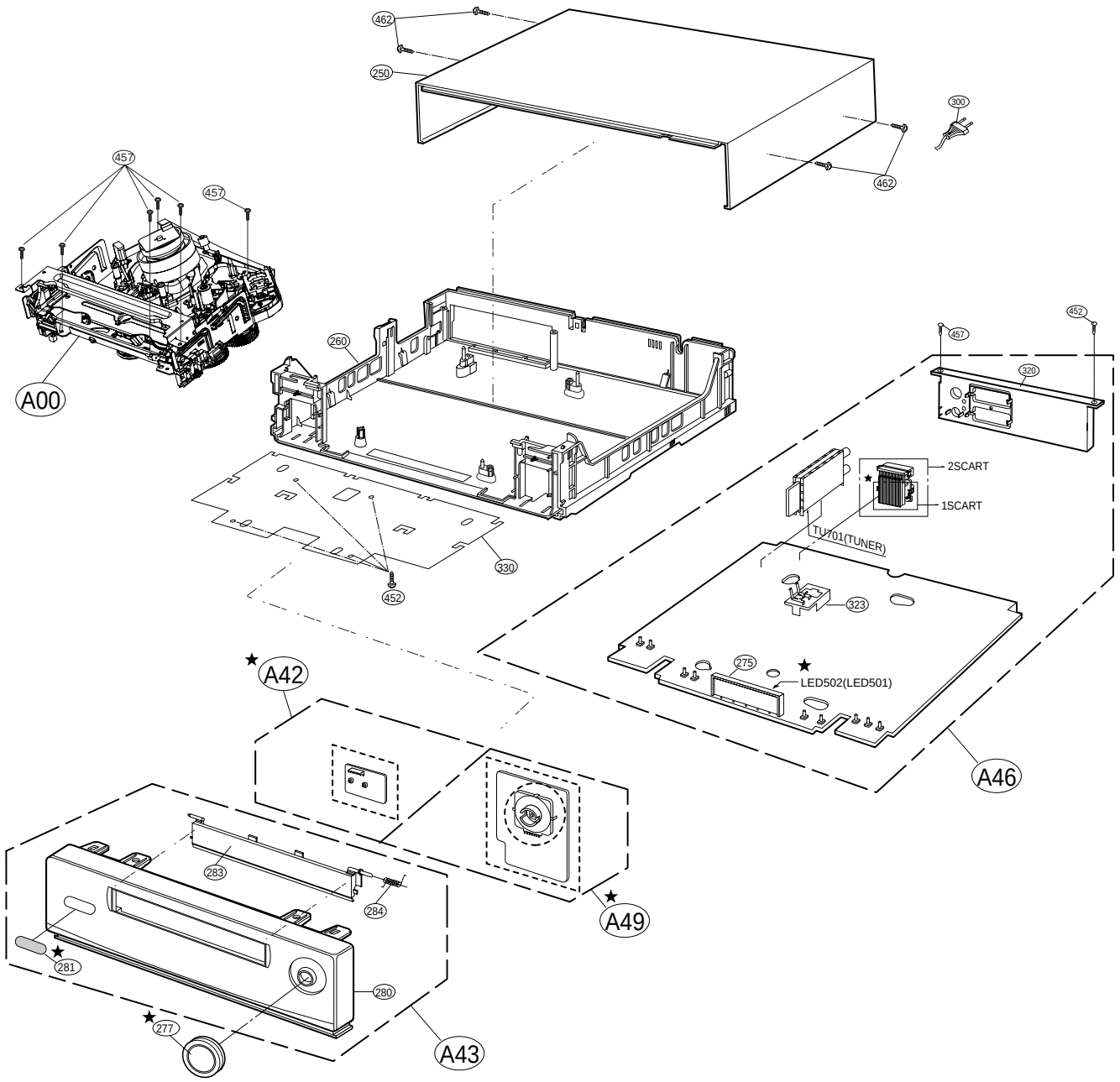
The instruction manual to be provided with this product will differ according to the destination.

NOTE) Refer to "SECTION REPLACEMENT PARTS LIST in order to look for the part number of each part.

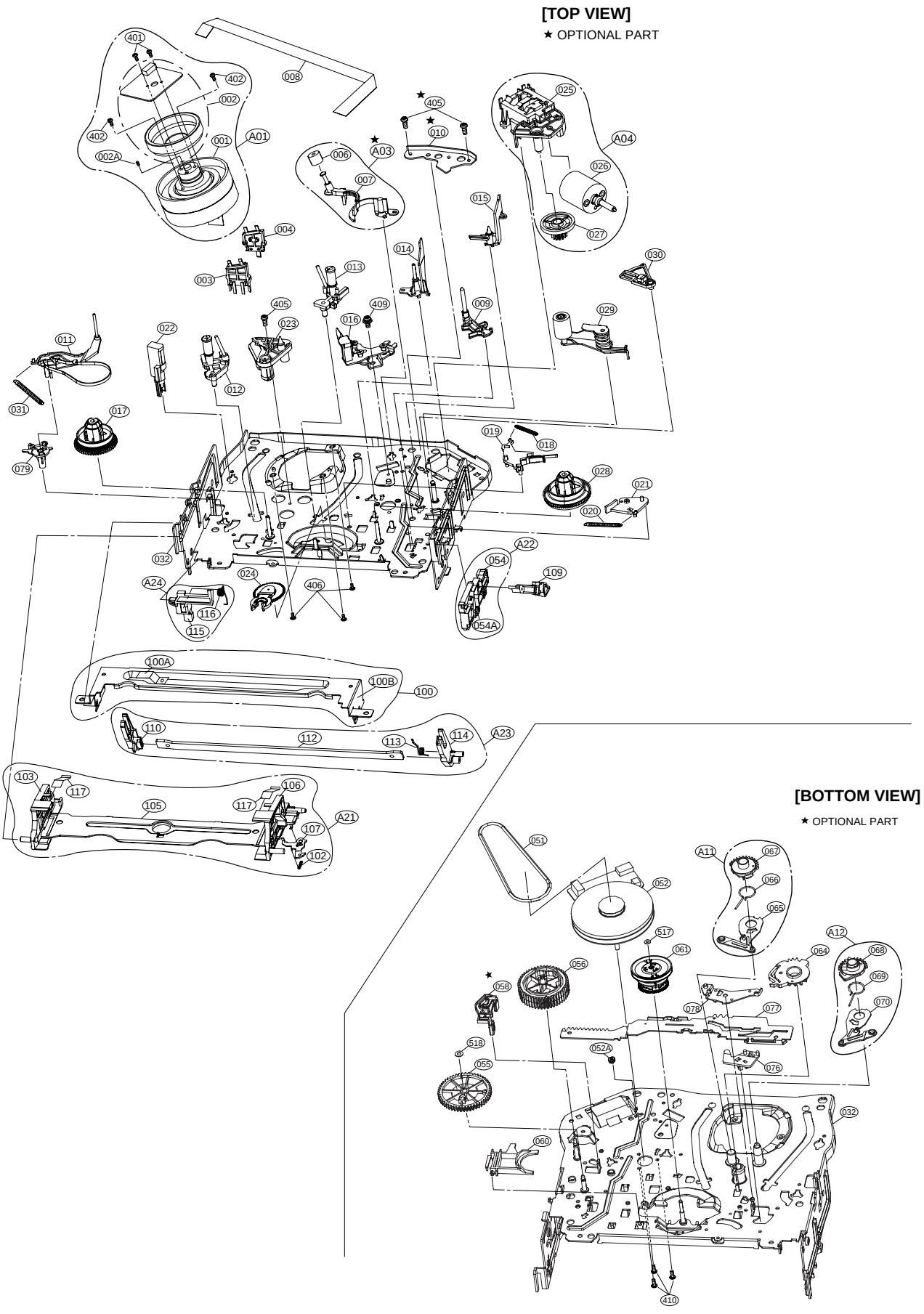


5.1.2 FINAL ASSEMBLY <M2>

NOTE) Refer to “SECTION 5 REPLACEMENT PARTS LIST” in order to look for the part number of each part.
★ OPTIONAL PARTS



5.1.3 MECHANISM ASSEMBLY <M4>



MODEL	MARK	MODEL	MARK	MODEL	MARK
HR-V200EZ	A	HR-V205EK	B	HR-V500EZ	C
HR-V505EK	D	HR-V505EZ	E		

NSP:Not Service Parts

5.2 REPLACEMENT PARTS LIST

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PACKING AND ACCESSORY PARTS LIST <M1>

#	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
	801	LG-3835RP0095E	INSTRUCTION ASSEMBLY	VCR FCJ203F.NA6IJJS	B	
	801	LG-3835RP0095Q	INSTRUCTION ASSEMBLY	VCR FCJ903NY.NA8PJJS	E	
	801	LG-3835RP0095S	INSTRUCTION ASSEMBLY	VCR FCJ900NY.NA8PJJS	A C	
	801	LG-3835RP0096C	INSTRUCTION ASSEMBLY	VCR FCJ904NF.NA6IJJS	D	
	802	LG-3890R-H784S	BOX	FCJ909NP NA3GJJG SW3-A 0.849 1	ABCDE	
	803	LG-3920R-0067A	PACKING	AF999NS 0.02 65 EPS 12 1190 23	ABCDE	
	804	LG-292-053A	BAG	SOFT(VCP)	ABCDE	NSP
	808	QAB0022-001	BATTERY,LITHIUM	CR2032 PANASONIC PANASONIC 3.0	ABCDE	
	810	LG-6851R-0012B	CABLE ASSEMBLY	RF-CABLE DOUBLE SHIELD PAL LGE	ABCDE	
	900	LG-6711R2P041A	REMOTE CONTROLLER ASSEMBLY	JVC FCJ909NP LP21138-006 W/SHO	B DE	
	900	LG-6711R2P041B	REMOTE CONTROLLER ASSEMBLY	JVC FCJ200P LP21138-005 W/O SH	A C	

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FINAL PARTS LIST <M2>

#	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
	A43	LG-3721R-F313A	PANEL ASSEMBLY,FRONT	FRONT (JVC EVNT)	A	
	A43	LG-3721R-F313C	PANEL ASSEMBLY,FRONT	VCR FCJ203F NA6JJS HR-V205	B	
	A43	LG-3721R-F313F	PANEL ASSEMBLY,FRONT	VCR FCJ900NP NA8SJJS	C	
	A43	LG-3721R-F313H	PANEL ASSEMBLY,FRONT	VCR FCJ904NF NA6IJJS	D	
	A43	LG-3721R-F313J	PANEL ASSEMBLY,FRONT	VCR FCJ903NY NA8PJJS	E	
	A46	LG-3501R-7803G	BOARD ASSEMBLY	VCR JVC PAL SCART	E	
	A46	LG-3501R-7803H	BOARD ASSEMBLY	VCR JVC PAL SCART	C	
	A46	LG-3501R-7803K	BOARD ASSEMBLY	VCR JVC PAL SCART	D	
	A46	LG-3501R-7803S	BOARD ASSEMBLY	VCR JVC PAL SCART	B	
	A46	LG-3501R-7803U	BOARD ASSEMBLY	VCR JVC PAL SCART	A	
	250	LG-3110R-0223G	CASE	VCR - TOP(0128 A288G SIDE SCRE	ABCDE	
	260	LG-3210R-0023F	FRAME	VCR - MAIN (VII-PJT, 60HR,8657	ABCDE	NSP
	280	LG-3720R-F702A	PANEL,FRONT	FRONT(JVC EVNT)	ABCDE	NSP
	283	LG-3580R-V031A	DOOR,CASE	VCR - CST (VCR) (MONO-B589G-SI	AB	
	283	LG-3580R-V031C	DOOR,CASE	VCR - CST (VCR) (HIFI-B589G-SI	CDE	
	284	LG-442-681A	SPRING	DOOR	ABCDE	
	300	LG-6410RBHV02Z	POWER CORD	MP5005SC/HO3VVH2-F VOLEX BSI W	B D	
	300	LG-6410RCHP02Z	POWER CORD	HIT-102/H03VHH2-F (ST-HS:80MM)	A C E	
	320	LG-3720R-D020A	PANEL	VCR - DISTRIBUTOR (PAL-1SCART)	AB	
	320	LG-3720R-D020C	PANEL	VCR - DISTRIBUTOR (PAL-2SCART	D	
	320	LG-3720R-D020D	PANEL	VCR - DISTRIBUTOR (PAL-1SCART	C E	
	330	LG-3550R-0210A	COVER	BOTTOM(LARGE)	ABCDE	
	452	LG-353-051A	SCREW	SPECIAL	ABCDE	
	457	LG-353-051E	SCREW	SPECIAL (3X12)	ABCDE	
	462	LG-353-136D	SCREW,DRAWING	+ 2 D4.0 L12.5 MSWR3/FN	ABCDE	

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MECHANISM PARTS LIST <M4>

#	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
	A00	LG-6721RF0700D	DECK ASSEMBLY,VIDEO	D35(N) DI(2HD, SP ONLY, NP, AH	A	NSP
	A00	LG-6721RF0710D	DECK ASSEMBLY,VIDEO	D35(N) DI (2HD, NP, AHC(X), B/	B	NSP
	A00	LG-6721RF0750D	DECK ASSEMBLY,VIDEO	D35(N) DI (4HF, PAL, AHC(X), B	CDE	NSP
	A01	LG-6723R-0401A	DRUM(CIRC) ASSEMBLY	D35-2CH SP ONLY (8P2)	A	
	A01	LG-6723R-0401B	DRUM(CIRC) ASSEMBLY	D35-2CH SP/EP (8M2)	B	
	A01	LG-6723R-0403C	DRUM(CIRC) ASSEMBLY	D35-6CH PAL (8P6C)	CDE	
	A04	LG-4811RF0038A	BRACKET ASSEMBLY	L/D(S)	ABCDE	
	A11	LG-4471R-0005A	GEAR ASSY	P3	ABCDE	
	A12	LG-4471R-0004A	GEAR ASSY	P2	ABCDE	
	A21	LG-4931R-0047A	HOLDER ASSY	CST	ABCDE	
	A22	LG-4471R-0006A	GEAR ASSY	RACK F/L	ABCDE	
	A23	LG-4261R-0023A	ARM ASSY	F/L	ABCDE	
	A24	LG-4510R-0046A	LEVER	ASSY SWITCH	ABCDE	
	001	LG-6723R-0304A	DRUM(CIRC) ASSEMBLY	SUB D35-2CH (8P2)	A	NSP
	001	LG-6723R-0304B	DRUM(CIRC) ASSEMBLY	SUB D35-2CH (8M2)	B	NSP
	001	LG-6723R-0306C	DRUM(CIRC) ASSEMBLY	SUB D35-6CH (8P6C)	CDE	NSP
	002	LG-4680R-B005A	MOTOR(MECH)	DRUM I2OAL05 SEJIN-SANKYO ICLE	ABCDE	
	002A	LG-5202R00002C	BRUSH,CARBON	ASSY D33 (TIP+2 SPRING) 1.4,	ABCDE	
	003	LG-4930R-0284A	HOLDER	FPC(6CH)	CDE	
	003	LG-4930R-0286A	HOLDER	FPCB(2CH)	AB	
	004	LG-5006R-0034A	CAP	FPC	ABCDE	
	008	LG-6850R-HG18Z	CABLE,FLAT	P=1.25 FFC UL2896(0.05X0.8) 7	ABCDE	
	009	LG-4260R-0038A	ARM	T/UP(D35)	ABCDE	
	010	LG-4810R-0125A	BRACKET	CHASSIS	ABCDE	
	011	LG-4261R-0022A	ARM ASSY	TENSION(D35)	ABCDE	
	012	LG-3041R-0037A	BASE ASSY	P2	ABCDE	
	013	LG-3041R-0038A	BASE ASSY	P3	ABCDE	
	014	LG-3041R-0039A	BASE ASSY	P4	ABCDE	
	015	LG-5870R-0005A	OPENER	LID(D35)	ABCDE	
	016	LG-3041R-0036A	BASE ASSEMBLY	A/C HEAD (ALPS)	ABCDE	
	017	LG-4408R-0003A	REEL	S	ABCDE	
	018	LG-4970R-0140A	SPRING	COIL RS D35	ABCDE	
	019	LG-4421R-0008A	BRAKE ASSEMBLY	RS	BCDE	
	020	LG-4970R-0128A	SPRING	COIL D35 (TB)	ABCDE	
	021	LG-4421R-0006A	BRAKE ASSY	T	ABCDE	
	022	LG-6520D00002A	HEAD(CIRC)	D35 FE ST FE HEAD	ABCDE	
	023	LG-3040R-0057A	BASE	LOADING	ABCDE	
	024	LG-4261R-0029A	ARM ASSEMBLY	IDLER (N)	ABCDE	
	025	LG-4810R-0118A	BRACKET	L/D(S)	ABCDE	NSP
	026	LG-4680R-D002A	MOTOR(MECH)	LOADING MDB2B66 SANKYO D35 ASP	ABCDE	NSP
	027	LG-4470R-0093A	GEAR	WHEEL	ABCDE	NSP
	028	LG-4408R-0004A	REEL	T	ABCDE	
	029	LG-4261R-0019C	ARM ASSEMBLY	DECK/MECHA PINCH	ABCDE	
	030	LG-4510R-0043A	LEVER	T/UP	ABCDE	
	031	LG-4970R-0123A	SPRING	COIL TENSION(D35)	ABCDE	
	032	LG-3141R-0040A	CHASSIS ASSY	D35	ABCDE	NSP
	051	LG-4400R-0005A	BELT	CAPSTAN	ABCDE	
	052	LG-4680R-A007A	MOTOR(MECH)	CAPSTAN F2QVB06 SANKYO D35 ASR	ABCDE	
	052A	LG-4980R-0023A	SUPPORTER	CAPSTAN(D35)	ABCDE	
	054	LG-4470R-0100A	GEAR	RACK F/L	ABCDE	
	054A	LG-4970R-0124B	SPRING	COIL D35 (RACK F/L)	ABCDE	
	055	LG-4470R-0097A	GEAR	DRIVE(D35)	ABCDE	
	056	LG-4470R-0096A	GEAR	CAM(D35)	ABCDE	
	058	LG-4421R-0007A	BRAKE ASSY	CAPSTAN	A CDE	
	060	LG-4510R-0040A	LEVER	F/R(D35)	ABCDE	
	061	LG-4265R-0006A	CLUTCH ASSEMBLY	D35 (N)	ABCDE	
	064	LG-4470R-0098A	GEAR	SECTOR(D35)	ABCDE	
	065	LG-4261R-0021A	ARM ASSY	P3	ABCDE	NSP
	066	LG-4970R-0122A	SPRING	COIL D35	ABCDE	NSP
	067	LG-4470R-0095A	GEAR	P3	ABCDE	NSP
	068	LG-4470R-0094A	GEAR	P2	ABCDE	NSP
	069	LG-4970R-0122A	SPRING	COIL D35	ABCDE	NSP
	070	LG-4261R-0020A	ARM ASSY	P2	ABCDE	NSP
	076	LG-4510R-0047A	LEVER	SPRING	ABCDE	
	077	LG-3300R-M116A	PLATE	SLIDER	ABCDE	
	078	LG-4510R-0041A	LEVER	TENSION	ABCDE	
	079	LG-3040R-0056A	BASE	TENSION(D35)	ABCDE	
	100	LG-3301R-M022A	PLATE ASSEMBLY	TOP	ABCDE	
	100A	LG-3300R-0184A	PLATE	GND	ABCDE	
	100B	LG-3300R-M118A	PLATE	TOP(D35)	ABCDE	
	102	LG-4970R-0130A	SPRING	COIL D35 (STOPPER)	ABCDE	
	103	LG-4930R-0276A	HOLDER	SIDE(L)	ABCDE	NSP
	105	LG-4930R-0274A	HOLDER	CST	ABCDE	NSP
	106	LG-4930R-0275A	HOLDER	SIDE(R)	ABCDE	NSP
	107	LG-4510R-0044A	LEVER	STOPPER	ABCDE	NSP
	109	LG-5870R-0004A	OPENER	DOOR	ABCDE	
	110	LG-4260R-0035A	ARM	F/L(L)	ABCDE	NSP
	112	LG-3070R-0002A	BODY	F/L	ABCDE	NSP
	113	LG-4970R-0127A	SPRING	COIL D35 (F/L(R))	ABCDE	NSP
	114	LG-4260R-0036A	ARM	F/L(R)	ABCDE	NSP
	115	LG-4510R-0042A	LEVER	SWITCH	ABCDE	
	116	LG-4970R-0138A	SPRING	COIL D35 SWITCH	ABCDE	
	117	LG-3300R-M137A	PLATE	SPRING CST	ABCDE	
	401	LG-1MEC0261518	SCREW MACHINE,PAN HEAD SPR W	D2.6 L4.5 MSWR3/FZY	ABCDE	
	402	LG-1MPC0261418	SCREW MACHINE,PAN HEAD	D 2.6 L 4.0 MSWR3/FZY	ABCDE	
	405	LG-1SZZR-0031B	SCREW,DRAWING	+ 1 D2.6 L5.8 SWRCH16A/FZY TAP	ABCDE	
	406	LG-1MEC0302018	PAN HEAD MACHINE SCREW S/W +	D 3.0 L 6.0 MSWR3/FZY	ABCDE	
	409	LG-1SZZR-0032B	SCREW,DRAWING	+ 1 D2.6 L5.0 SWRCH18A/FZY TAP	ABCDE	
	410	LG-1APF0262218	SCREW TAP TITE(B),PAN HEAD	D2.6 L6.8 MSWR3/FZY	ABCDE	
	517	LG-1WZZR-0004D	WASHER	STOPPER	ABCDE	
	518	LG-1WZZR-0004A	WASHER	STOPPER	ABCDE	

MODEL	MARK	MODEL	MARK	MODEL	MARK
HR-V200EZ	A	HR-V205EK	B	HR-V500EZ	C
HR-V505EK	D	HR-V505EZ	E		

NSP:Not Service Parts

MAIN BOARD ASSEMBLY <03>

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
		IC101	LG-0IPMGSK003A	IC,POWER MANAGEMENT	STR-A6351 SANKEN 8 DIP ST SMPS	ABCDE	
		IC102	PZ0ILI817000B	SENSOR	LTV-817B,PHOTO COUPLER(LITEON)	ABCDE	
		IC103	LG-0IKE431000A	IC,KEC	KIA431 3 PIN TP	ABCDE	
		IC301	LG-0ILNRSA005B	IC,LINEAR	LA71750EM SANYO 100PIN QFP TRA	ABCDE	
		IC501	LG-0IMCRHI027A	IC,MICRO CONTROLLER	HD64322197SA19F HITACHI 112PIN	ABCDE	
		IC503	LG-0ICS241600B	IC,CATALYST	CAT24W16P 8P DIP ST 16K SERIAL	ABCDE	
		IC504	LG-0IKE703100A	IC,KEC	KIA7031P 3P 3.1V RESET(TAPING)	ABCDE	
		IC505	LG-0IKE704200B	IC,KEC	KIA7042P 3P 4.2V RESET(TAPING)	ABCDE	
		IC506	LG-0ILNRPY001A	IC,LINEAR	PT6955 PTC 24P SOP ST LED DRIV	ABCDE	
		IC751	LG-0IIT341700B	IC,ITT	MSP3417D-QG QFP44 BK NICAM+A2	CDE	
		IC801	LG-0IPH960500A	IC,PHILIPS	TDA9605H QFP44 BK HIFI AMP+HIF	CDE	
		Q151	LG-0TR127309AA	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	ABCDE	
		Q152	LG-0TR127309AA	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	ABCDE	
		Q154	LG-0TR126809BA	TRANSISTOR,BIPOLARS	KTA1268-BL TP KEC	ABCDE	
		Q155	LG-0TR320509AB	TRANSISTOR	KTC3205-TP-Y (KTC2236A)KEC	ABCDE	
		Q157	LG-0TR120309AE	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	ABCDE	
		Q162	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q163	LG-0TR120109AC	TRANSISTOR	SRC1201 TP AUK TO92 4.7K,4.7K	ABCDE	
		Q164	LG-0TR120309AE	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	ABCDE	
		Q165	LG-0TR220309AF	TRANSISTOR	SRA2203 TP AUK TO92 22K,22K	ABCDE	
		Q166	LG-0TR127309AA	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	ABCDE	
		Q301	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q302	LG-0TR198009CA	TRANSISTOR	2SA1980G TP AUK TO92	ABCDE	
		Q303	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q304	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q305	LG-0TR198009CA	TRANSISTOR	2SA1980G TP AUK TO92	ABCDE	
		Q306	LG-0TR534409AA	TRANSISTOR	2SC5344Y TP	ABCDE	
		Q307	LG-0TR198009CA	TRANSISTOR	2SA1980G TP AUK TO92	D	
		Q308	LG-0TR198009CA	TRANSISTOR	2SA1980G TP AUK TO92	ABCDE	
		Q309	LG-0TR198009CA	TRANSISTOR	2SA1980G TP AUK TO92	ABCDE	
		Q501	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q502	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q503	LG-0TR127309AA	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	ABCDE	
		Q504	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q514	LG-0TR120309AE	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	ABCDE	
		Q515	LG-0TR120309AE	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	ABCDE	
		Q5S1	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q901	LG-0TR120309AE	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	ABCDE	
		Q902	LG-0TR220309AF	TRANSISTOR	SRA2203 TP AUK TO92 22K,22K	ABCDE	
		Q903	LG-0TR120309AE	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	ABCDE	
		Q906	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q9M1	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		Q9M2	LG-0TR534309BA	TRANSISTOR	2SC5343-L TP AUK TO92	ABCDE	
		D102	LG-0DD010009CA	DIODE,RECTIFIER	EG01CW(R-FORM 5MM) TP SANKEN	ABCDE	
		D103	LG-0DR180209AA	DIODE,RECTIFIER	ERA18-02KFRB TP FUJI DO204AL 2	ABCDE	
		D104	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D105	LG-0DR104009BA	DIODE,RECTIFIER	RL104F TP RECTRON NON 400V 1A	ABCDE	
		D106	LG-0DR158220AA	DIODE,RECTIFIER	1N5822 BK RECTRON DO201AD 40V	ABCDE	
		D109	LG-0DR202000AB	DIODE,RECTIFIER	HER202 BK RECTRON NON 100V 2A	ABCDE	
		D155	2A02DIODE,RECTIFIERS		2A07 2A RECT(T/S)P=12.5 F DELT	ABCDE	
		D156	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D159	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D160	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D301	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D502	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D509	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D901	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D902	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D903	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D904	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	D	
		D9M1	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		D9M2	1SS133-T2	DIODE,SWITCHING	1SS133 DETECT,SW TP	ABCDE	
		C101	LG-624-088L	CAPACITOR,DRAWING	435D SUNIL ELECTRONICS 0.1UF/2	ABCDE	
		C102	LG-624-088L	CAPACITOR,DRAWING	435D SUNIL ELECTRONICS 0.1UF/2	ABCDE	
		C103	LG-0CE476CU611	CAPACITOR,AL.ELECTROLYTIC	47UF SHL,SD 400V M FL BK7.5	ABCDE	
		C105	LG-0CQ1031Y519	CAPACITOR,POLYESTER	0.01UF D 630V K PE NI TP	ABCDE	
		C106	LG-624-087B	CAPACITOR	HIGH-VOL 100P/1KV SMPS SAMHWA	ABCDE	
		C109	QETC1HM-106Z	CAPACITOR,FIXED ELECTROLYTIC	10M SRA 50V M FM5 TP(5)	ABCDE	
		C112	LG-0CG3320U630	CAPACITOR,SEMI CERAMIC	3300 PF 400V M E R(NK,AD,SD)	ABCDE	
		C113	LG-0CG3310U510	CAPACITOR,FIXED CERAMIC(TEMP.C	330PF D 400V 10% B(Y5P) R	ABCDE	
		C114	LG-0CQ4732K409	CAPACITOR,FIXED FILM	0.047UF S 50V J PE TP	ABCDE	
		C115	LG-624-085D	CAPACITOR	CE 47UF/50V KME (SMPS)	ABCDE	
		C116	LG-0CE108BF630	CAPACITOR,FIXED ELECTROLYTIC	1000UF KME 16V M FM5 BULK	ABCDE	
		C117	LG-624-082H	CAPACITOR	CE 1000UF/10V SHL(10*12.5)T/P	ABCDE	
		C120	LG-0CE477BH630	CAPACITOR,AL.ELECTROLYTIC	470UF KME TYPE 25V M FM5 BULK	ABCDE	
		C121	LG-0CE227CH618	CAPACITOR,FIXED ELECTROLYTIC	220UF SHL,SD 25V 20% FL TP 5	ABCDE	
		C127	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C135	LG-0CN4710K518	CAPACITOR TUBULA(HIGH DIELE)	470P 50V K B TA26	ABCDE	
		C153	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C190	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C301	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	ABCDE	
		C302	QET61CM-226	CAPACITOR,ELECTROLYTIC	22M SRA 16V M FM5 TP(5)	ABCDE	
		C303	LG-0CN1220F668	CAPACITOR TUBULA(HIGH DIELE)	1200P 16V M X TA26	ABCDE	
		C304	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C305	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C306	LG-0CN1220F668	CAPACITOR TUBULA(HIGH DIELE)	1200P 16V M X TA26	ABCDE	
		C307	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C308	LG-0CQ1532K409	CAPACITOR,FIXED FILM	0.015UF S 50V J PE TP	ABCDE	
		C309	LG-0CN1210K518	CAPACITOR TUBULA(HIGH DIELE)	120P 50V K B TA26	ABCDE	
		C310	LG-0CQ1032K409	CAPACITOR,POLYESTER(MYLAR)	0.01UF S 50V J PE TP	ABCDE	
		C311	LG-0CE4765K618	CAPACITOR,AL.ELECTROLYTIC	47UF SR,SV 50V M FL TP 5	ABCDE	
		C312	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C313	LG-0CQ2232L559	CAPACITOR,POLYESTER	0.022UF S 63V K PP NI TP5	ABCDE	
		C314	QET61CM-226	CAPACITOR,ELECTROLYTIC	22M SRA 16V M FM5 TP(5)	ABCDE	
		C315	LG-0CE2253K636	CAPACITOR,FIXED ELECTROLYTIC	2.2UF SRE,SE 50V 20% FM5 BP(D)	ABCDE	
		C316	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C317	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C318	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C319	LG-0CQ1032K409	CAPACITOR,POLYESTER(MYLAR)	0.01UF S 50V J PE TP	ABCDE	
		C320	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C321	LG-0CX6800K408	CAPACITOR TUBULA(T.C)	68P 50V J SL TA26	ABCDE	
		C322	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C323	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C324	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	ABCDE	
		C325	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C326	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C327	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C328	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C329	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C330	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C331	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C333	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C334	LG-0CN4730K948	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	ABCDE	
		C335	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C336	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C337	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C338	LG-0CN4730K948	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	ABCDE	
		C339	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C340	LG-0CN4730K948	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	ABCDE	
		C341	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C342	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C343	LG-0CN4730K948	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	ABCDE	
		C344	LG-0CN1010K518	CAPACITOR,TUBULAR(HIGH DIELEC)	100P 50V K B TA26	ABCDE	
		C345	LG-0CN3330K518	CAPACITOR,FIXED TUBULAR(High d	0.033UF 50V K B TA26	ABCDE	
		C346	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C347	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C348	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C349	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C353	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C355	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C356	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C357	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C358	LG-0CX6800K408	CAPACITOR TUBULA(T.C)	68P 50V J SL TA26	ABCDE	
		C359	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C360	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C361	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C362	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C363	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C364	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C365	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C366	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C367	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C368	LG-0CQ8224K409	CAPACITOR,FIXED FILM	0.0082UF TE 50V 5% PE TP5	ABCDE	
		C369	LG-0CN1010K518	CAPACITOR,TUBULAR(HIGH DIELEC)	100P 50V K B TA26	ABCDE	
		C370	LG-0CN8200K418	CAPACITOR TUBULA(HIGH DIELE)	82P 50V J B TA26	ABCDE	
		C371	LG-0CN8200K418	CAPACITOR TUBULA(HIGH DIELE)	82P 50V J B TA26	ABCDE	
		C372	LG-0CN8200K418	CAPACITOR TUBULA(HIGH DIELE)	82P 50V J B TA26	ABCDE	
		C373	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C375	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C500	LG-0CE4775C638	CAPACITOR,FIXED ELECTROLYTIC	470UF SR,SV 6.3V 20% FM5 TP 5	AB	
		C500	LG-624-074A	CAPACITOR,DRAWING	SUPER CAP 0.047F/5.5V T/P S/S	CDE	
		C501	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C502	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C503	LG-0CE2274C638	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	ABCDE	
		C504	LG-0CE2274C638	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	ABCDE	
		C505	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C506	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C508	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C509	LG-0CC2200K415	CAPACITOR,CERAMIC(TEMP COMP)	22P 50V J NP0 TS	ABCDE	
		C510	LG-0CE2274C638	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	ABCDE	
		C511	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C512	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C513	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	

MODEL	MARK	MODEL	MARK	MODEL	MARK
HR-V200EZ	A	HR-V205EK	B	HR-V500EZ	C
HR-V505EK	D	HR-V505EZ	E		

NSP:Not Service Parts

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
		C514	LG-0CC1200K415	CAPACITOR,FIXED CERAMIC(TEMP.C	12PF 2012 50V 5% NP0 TR	ABCDE	
		C515	LG-0CC1500K415	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NP0 TS	ABCDE	
		C516	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C518	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C519	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C520	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C523	QETC1HM-225Z	CAPACITOR,FIXED ELECTROLYTIC	2.2UF SRA,SS 50V 20% FM5 TP 5	ABCDE	
		C524	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C525	LG-0CE2274C638	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	ABCDE	
		C526	LG-0CE4764J638	CAPACITOR,AL.ELECTROLYTIC	47UF SRA,SS 35V M FM5 TP 5	ABCDE	
		C527	LG-0CN2210K518	CAPACITOR TUBULA(HIGH DIELE)	220P 50V K B TA26	ABCDE	
		C533	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C534	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	ABCDE	
		C535	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	ABCDE	
		C543	LG-0CN2220F668	CAPACITOR,TUBULAR(HIGH DIELEC)	2200P 16V M X TA26	ABCDE	
		C544	LG-0CQ4732K409	CAPACITOR,FIXED FILM	0.047UF S 50V J PE TP	ABCDE	
		C545	LG-0CN3330K518	CAPACITOR,FIXED TUBULAR(High d	0.033UF 50V K B TA26	ABCDE	
		C546	LG-0CE4764J638	CAPACITOR,AL.ELECTROLYTIC	47UF SRA,SS 35V M FM5 TP 5	ABCDE	
		C547	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C551	LG-0CQ3332K409	CAPACITOR,FIXED FILM	0.033UF S 50V J PE TP	ABCDE	
		C552	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C561	LG-0CE2274C638	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	ABCDE	
		C564	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C567	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C570	LG-0CC1500K415	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NP0 TS	ABCDE	
		C571	LG-0CC1500K415	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NP0 TS	ABCDE	
		C575	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C576	LG-0CC2700K415	CAPACITOR CERAMIC(TEMP COMP)	27P 50V J NP0 TP	ABCDE	
		C577	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C578	LG-0CN2220F668	CAPACITOR,TUBULAR(HIGH DIELEC)	2200P 16V M X TA26	ABCDE	
		C581	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C582	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C583	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C589	LG-0CQ2232K409	CAPACITOR,FIXED FILM	0.022UF S 50V J PE TP	ABCDE	
		C596	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C5A3	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C5A4	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C5A5	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C5G1	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C5G2	LG-0CE1086C638	CAPACITOR,FIXED ELECTROLYTIC	1000000000 PF SMS,SG 6.3V M FM	ABCDE	
		C5G3	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C5K1	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C5R1	QETA1CM-336	CAPACITOR,ELECTROLYTIC	33M SRA 16V M FM5 TP(5)	ABCDE	
		C5R2	LG-0CN6810K518	CAPACITOR TUBULA(HIGH DIELE)	680P 50V K B TA26	ABCDE	
		C5S1	LG-0CX4300K408	CAPACITOR TUBULA(T.C)	43P 50V J SL TA26	ABCDE	
		C5S3	LG-0CN223AK948	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	ABCDE	
		C701	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	ABCDE	
		C704	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C705	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C706	LG-0CE4775C618	CAPACITOR,AL.ELECTROLYTIC	470UF SR,SV 6.3V M FL TP 5	ABCDE	
		C707	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C710	LG-0CX6800K408	CAPACITOR TUBULA(T.C)	68P 50V J SL TA26	ABCDE	
		C711	LG-0CX3300K408	CAPACITOR TUBULA(T.C)	33P 50V J SL TA26	ABCDE	
		C712	LG-0CX5R60K508	CAPACITOR TUBULA(T.C)	5.6PF 50V K SL TA26	ABCDE	
		C713	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	ABCDE	
		C714	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C751	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C752	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C753	LG-0CX5600K408	CAPACITOR,TUBULAR(T.C)	56P 50V J SL TA26	CDE	
		C754	LG-0CX5600K408	CAPACITOR,TUBULAR(T.C)	56P 50V J SL TA26	CDE	
		C755	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C756	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C757	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C758	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C759	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C760	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C761	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C764	LG-0CN3920F668	CAPACITOR TUBULA(HIGH DIELE)	3900P 16V M X TA26	CDE	
		C765	LG-0CN1520F668	CAPACITOR,TUBULAR(HIGH DIELEC)	1500P 16V M X TA26	CDE	
		C766	QETF1HM-335Z	CAPACITOR,FIXED ELECTROLYTIC	3.3UF SRA,SS 50V 20% FM5 TP 5	CDE	
		C769	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C770	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C771	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C772	LG-0CC0500K015	CAPACITOR,CERAMIC(TEMP COMP)	5P 50V C NP0 TR	CDE	
		C773	LG-0CC0800K015	CAPACITOR CERAMIC(TEMP COMP)	8P 50V C NP0 TS	CDE	
		C790	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	ABCDE	
		C7M2	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		C7M3	LG-0CX2700K408	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	ABCDE	
		C7M6	LG-0CX2700K408	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	ABCDE	
		C805	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	CDE	
		C806	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	CDE	
		C807	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	CDE	
		C808	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	CDE	
		C809	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	CDE	
		C810	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C811	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C813	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C814	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C817	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C818	LG-0CE4754K638	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	CDE	
		C819	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C820	LG-0CQ6822K409	CAPACITOR,POLYESTER(MYLAR)	6800PF S 50V J PE TP	CDE	
		C821	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C822	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C823	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C824	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C825	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C826	LG-0CQ6822K409	CAPACITOR,POLYESTER(MYLAR)	6800PF S 50V J PE TP	CDE	
		C827	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	CDE	
		C828	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C829	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C830	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	CDE	
		C831	LG-0CN1030F678	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	CDE	
		C832	QET61CM-476	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	CDE	
		C835	QETL1HM-474	CAPACITOR,ELECTROLYTIC	0.47M SRA 50V M FM5 TP(5)	CDE	
		C8R1	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	CDE	
		C8R2	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	CDE	
		C901	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C902	LG-0CE477CF638	CAPACITOR,AL.ELECTROLYTIC	470UF SHL TYPE 16V M FM5 TP 5	ABCDE	
		C903	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C904	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	ABCDE	
		C909	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C911	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	D	
		C912	LG-0CE477CF638	CAPACITOR,AL.ELECTROLYTIC	470UF SHL TYPE 16V M FM5 TP 5	D	
		C914	LG-0CN1020K518	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	D	
		C915	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	D	
		C917	LG-0CX2700K408	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	D	
		C920	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C921	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C956	QETC1HM-105Z	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	ABCDE	
		C957	LG-0CX2700K408	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	ABCDE	
		C960	LG-0CN1040K948	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	ABCDE	
		C961	QET61CM-106Z	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	ABCDE	
		R101	LG-614-007A	RESISTOR	2.7/2W CEMENT SMPS V	ABCDE	
		R102	QRD161J-184Y	RESISTOR,FIXED CARBON FILM	180K OHM 1/6 W 0.05 TA26	ABCDE	
		R103	LG-0RD0682F608	RESISTOR,FIXED CARBON FILM	68 OHM 1/6 W 5.00% TA26	ABCDE	
		R104	LG-0RS5602K619	RESISTOR,FIXED METAL OXIDE FIL	56K OHM 2 W 5.00% TR	ABCDE	
		R105	LG-0RF0101A619	RESISTOR,DRAWING	1 OHM 1/2 W(7.0) 5.00% TR	ABCDE	
		R106	QRD161J-184Y	RESISTOR,FIXED CARBON FILM	180K OHM 1/6 W 0.05 TA26	ABCDE	
		R109	LG-0RS0350K619	RESISTOR,FIXED METAL OXIDE FIL	0.35 OHM 2 W 5.00% TR	ABCDE	
		R112	QRD161J-104Y	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	ABCDE	
		R116	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
		R117	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
		R118	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R119	LG-0RN3301F408	RESISTOR,FIXED METAL FILM	3.3K OHM 1/6 W 1% TA26	ABCDE	
		R120	LG-0RN3001F408	RESISTOR,FIXED METAL FILM	3K OHM 1/6 W 1% TA26	ABCDE	
		R125	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
		R126	QRE141J-681Y	RESISTOR,FIXED CARBON FILM	680 OHM 1/6 W 5% TA26	ABCDE	
		R151	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R152	QRE141J-331Y	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	ABCDE	
		R153	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R154	QRE141J-331Y	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	ABCDE	
		R155	QRD161J-332Y	RESISTOR,FIXED CARBON FILM	3.3K OHM 1/6 W 5% TA26	ABCDE	
		R157	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R158	QRD161J-183Y	RESISTOR,FIXED CARBON FILM	18K OHM 1/6 W 5% TA26	ABCDE	
		R159	QRD161J-471Y	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	ABCDE	
		R161	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
		R170	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
		R172	QRD161J-271Y	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	ABCDE	
		R173	QRD161J-271Y	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	ABCDE	
		R1B1	QRE121J-155Y	RESISTOR,FIXED CARBON FILM	1.5M OHM 1/2 W 5.00% MF10	ABCDE	
		R301	QRD161J-563Y	RESISTOR,FIXED CARBON FILM	56K OHM 1/6 W 5% TA26	ABCDE	
		R303	QRD161J-183Y	RESISTOR,FIXED CARBON FILM	18K OHM 1/6 W 5% TA26	ABCDE	
		R304	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
		R305	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
		R306	QRD161J-223Y	RESISTOR,FIXED CARBON FILM	22K OHM 1/6 W 5% TA26	ABCDE	
		R307	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
		R308	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
		R309	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R310	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
		R311	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R312	QRD161J-683Y	RESISTOR,FIXED CARBON FILM	68K OHM 1/6 W 5% TA26	ABCDE	
		R313	QRD161J-2R2Y	RESISTOR,FIXED CARBON FILM	2.2 OHM 1/6 W 5% TA26	ABCDE	
		R314	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
		R315	QRD161J-470Y	RESISTOR,FIXED CARBON FILM	47 OHM 1/6 W 5% TA26	ABCDE	
		R316	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
		R317	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
		R318	LG-0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	ABCDE	

MODEL	MARK	MODEL	MARK	MODEL	MARK
HR-V200EZ	A	HR-V205EK	B	HR-V500EZ	C
HR-V505EK	D	HR-V505EZ	E		

NSP:Not Service Parts

# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
	R319	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R320	QRE141J-151Y	RESISTOR,FIXED CARBON FILM	150 OHM 1/6 W 5% TA26	ABCDE	
	R321	QRD161J-122	RESISTOR,FIXED CARBON FILM	1.2K OHM 1/6 W 5% TA26	ABCDE	
	R322	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R324	QRE141J-334Y	RESISTOR,FIXED CARBON FILM	330K OHM 1/6 W 5% TA26	ABCDE	
	R325	QRD161J-471Y	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	ABCDE	
	R326	QRE141J-123Y	RESISTOR,FIXED CARBON FILM	12K OHM 1/6 W 5% TA26	ABCDE	
	R327	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
	R328	QRD161J-271Y	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	ABCDE	
	R329	QRE141J-123Y	RESISTOR,FIXED CARBON FILM	12K OHM 1/6 W 5% TA26	ABCDE	
	R330	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R331	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R334	QRD161J-272Y	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	ABCDE	
	R335	QRD161J-682Y	RESISTOR,FIXED CARBON FILM	6.8K OHM 1/6 W 5% TA26	ABCDE	
	R336	QRD161J-104Y	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	ABCDE	
	R337	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
	R338	QRD161J-271Y	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	ABCDE	
	R339	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R340	QRD161J-183Y	RESISTOR,FIXED CARBON FILM	18K OHM 1/6 W 5% TA26	ABCDE	
	R342	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R343	QRD161J-750Y	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	D	
	R344	QRD161J-471Y	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	ABCDE	
	R345	QRD161J-471Y	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	ABCDE	
	R346	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R347	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	D	
	R349	QRD161J-182Y	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	ABCDE	
	R350	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R351	QRD161J-824	RESISTOR,FIXED CARBON FILM	820K OHM 1/6 W 0.05 TA26	ABCDE	
	R3A1	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R501	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R502	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R503	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R504	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R505	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R506	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R507	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R508	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
	R509	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
	R510	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
	R511	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R512	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R513	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R514	LG-0RD1203F608	RESISTOR,FIXED CARBON FILM	120K OHM 1/6 W 5% TA26	ABCDE	
	R515	QRD161J-271Y	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	ABCDE	
	R516	QRD161J-474Y	RESISTOR,FIXED CARBON FILM	470K OHM 1/6 W 5% TA26	ABCDE	
	R517	QRD161J-471Y	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	ABCDE	
	R518	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R520	LG-0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	ABCDE	
	R521	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R522	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R523	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R524	QRE141J-220Y	RESISTOR,FIXED CARBON FILM	22 OHM 1/6 W 5% TA26	ABCDE	
	R525	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
	R526	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
	R527	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R528	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R529	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R530	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R531	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R535	QRD161J-474Y	RESISTOR,FIXED CARBON FILM	470K OHM 1/6 W 5% TA26	ABCDE	
	R542	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
	R543	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R544	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R546	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
	R547	QRE141J-123Y	RESISTOR,FIXED CARBON FILM	12K OHM 1/6 W 5% TA26	ABCDE	
	R548	QRD161J-104Y	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	ABCDE	
	R550	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R553	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R555	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R556	QRD161J-223Y	RESISTOR,FIXED CARBON FILM	22K OHM 1/6 W 5% TA26	ABCDE	
	R557	QRD161J-273Y	RESISTOR,FIXED CARBON FILM	27K OHM 1/6 W 5% TA26	ABCDE	
	R558	QRD161J-223Y	RESISTOR,FIXED CARBON FILM	22K OHM 1/6 W 5% TA26	ABCDE	
	R559	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R55T2	QRE141J-152Y	RESISTOR,FIXED CARBON FILM	1.5K OHM 1/6 W 5% TA26	ABCDE	
	R560	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R561	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R562	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R563	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
	R564	QRD161J-273Y	RESISTOR,FIXED CARBON FILM	27K OHM 1/6 W 5% TA26	ABCDE	
	R566	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R567	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R568	QRD161J-683Y	RESISTOR,FIXED CARBON FILM	68K OHM 1/6 W 5% TA26	ABCDE	
	R569	QRD161J-105Y	RESISTOR,FIXED CARBON FILM	1M OHM 1/6 W 5% TA26	ABCDE	
	R570	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R575	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R576	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R577	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R578	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
	R579	QRD161J-563Y	RESISTOR,FIXED CARBON FILM	56K OHM 1/6 W 5% TA26	ABCDE	
	R582	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R583	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R589	QRD161J-105Y	RESISTOR,FIXED CARBON FILM	1M OHM 1/6 W 5% TA26	ABCDE	
	R591	QRD161J-104Y	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	ABCDE	
	R5A2	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R5A3	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R5A5	QRD161J-474Y	RESISTOR,FIXED CARBON FILM	470K OHM 1/6 W 5% TA26	ABCDE	
	R5B3	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5B4	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5B5	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R5C1	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5C5	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5C6	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5C7	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5C9	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R5G1	QRE141J-473Y	RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	ABCDE	
	R5G2	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R5G3	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R5G4	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	ABCDE	
	R5P2	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R5P3	QRE141J-103Y	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	ABCDE	
	R5R7	QRE141J-331Y	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	ABCDE	
	R5R8	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5S1	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	ABCDE	
	R5T1	QRD161J-182Y	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	ABCDE	
	R5T10	QRE141J-152Y	RESISTOR,FIXED CARBON FILM	1.5K OHM 1/6 W 5% TA26	ABCDE	
	R5T11	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R5T3	QRD161J-222Y	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	ABCDE	
	R5T4	QRD161J-272Y	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	ABCDE	
	R5T5	LG-0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	ABCDE	
	R5T9	QRD161J-182Y	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	ABCDE	
	R706	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R707	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R709	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R753	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	CDE	
	R754	QRD161J-332Y	RESISTOR,FIXED CARBON FILM	3.3K OHM 1/6 W 5% TA26	CDE	
	R755	QRD161J-332Y	RESISTOR,FIXED CARBON FILM	3.3K OHM 1/6 W 5% TA26	CDE	
	R758	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	CDE	
	R759	QRD161J-562Y	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	CDE	
	R7M1	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R7M2	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R7M3	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R7M5	QRD161J-221	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	ABCDE	
	R801	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	CDE	
	R802	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	CDE	
	R817	QRD161J-335Y	RESISTOR,FIXED CARBON FILM	3.3M OHM 1/6 W 5.00% TA26	CDE	
	R818	QRE141J-333Y	RESISTOR,FIXED CARBON FILM	33K OHM 1/6 W 5% TA26	CDE	
	R819	QRD161J-272Y	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	CDE	
	R820	QRD161J-393Y	RESISTOR,FIXED CARBON FILM	39K OHM 1/6 W 5% TA26	CDE	
	R821	QRD161J-272Y	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	CDE	
	R822	QRE141J-333Y	RESISTOR,FIXED CARBON FILM	33K OHM 1/6 W 5% TA26	CDE	
	R823	QRD161J-471Y	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	CDE	
	R824	QRD161J-101Y	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	CDE	
	R825	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	CDE	
	R826	QRD161J-182Y	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	CDE	
	R827	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	CDE	
	R828	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	CDE	
	R830	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	CDE	
	R831	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	CDE	
	R8R1	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	CDE	
	R8R2	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	CDE	
	R901	QRD161J-750Y	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	ABCDE	
	R902	QRD161J-750Y	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	ABCDE	
	R903	LG-0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	AB	
	R903	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	CDE	
	R904	QRE141J-473Y	RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	ABCDE	
	R905	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R906	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	ABCDE	
	R911	QRD161J-750Y	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	D	
	R912	QRD161J-750Y	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	D	
	R913	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	D	
	R914	QRD161J-561	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	D	
	R943	QRE141J-152Y	RESISTOR,FIXED CARBON FILM	1.5K OHM 1/6 W 5% TA26	ABCDE	
	R964	QRD161J-821Y	RESISTOR,FIXED CARBON FILM	820 OHM 1/6 W 5% TA26	ABCDE	
	R965	QRE141J-102Y	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	ABCDE	
	R9M1	QRE141J-473Y	RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	AB	
	R9M2	LG-0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	AB	
	R9M3	QRE141J-473Y	RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	AB	
	R9M4	LG-0RD3901F608	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	AB	

MODEL	MARK	MODEL	MARK	MODEL	MARK
HR-V200EZ	A	HR-V205EK	B	HR-V500EZ	C
HR-V505EK	D	HR-V505EZ	E		

NSP:Not Service Parts

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP
		R9M5	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
		R9M6	QRD161J-472Y	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	ABCDE	
		RC501	LG-6712R1938GB	REMOTE CONTROLLER RECEIVER	TSOP2238WE1 VISHAY 37.9KHZ 19M	ABCDE	
		RS501	LG-6500RAB003A	SENSOR	SG-260 KODENSHI D33 REEL SENSO	ABCDE	
		RS502	LG-6500RAB003A	SENSOR	SG-260 KODENSHI D33 REEL SENSO	ABCDE	
		L101	LG-636-004C	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	ABCDE	
		L102	LG-616-145H	FILTER(CIRC)	SHT LFS2020V4-04350	ABCDE	
		L103	LG-633-088G	COIL,CHOKE	CHOCK(22MH) 5MM TOKO TP	ABCDE	
		L104	LG-633-088G	COIL,CHOKE	CHOCK(22MH) 5MM TOKO TP	ABCDE	
		L106	LG-636-004C	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	ABCDE	
		L301	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	ABCDE	
		L302	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L303	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	ABCDE	
		L304	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	ABCDE	
		L305	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L307	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	ABCDE	
		L501	LG-0LA0122K018	INDUCTOR AXIAL LEAD	12M K 2.3X3.4 L5 TP	ABCDE	
		L503	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L504	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	ABCDE	
		L505	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L506	LG-635-027C	INDUCTOR,RADIAL LEAD	EL0405RA SKI150G-3 K-TDK 15UH	ABCDE	
		L5G2	LG-0LR1500K035	INDUCTOR RADIAL LEAD	150M K 6X6 L5 TP	ABCDE	
		L5S1	LG-0LA0332K018	INDUCTOR AXIAL LEAD	33M K 2.3X3.4 L5 TP	ABCDE	
		L702	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L703	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L704	LG-0LA0821K018	INDUCTOR AXIAL LEAD	8.2M K 2.3X3.4 L5 TP	ABCDE	
		L705	LG-0LR1000K035	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	ABCDE	
		L751	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	CDE	
		L753	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	CDE	
		L801	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	CDE	
		L802	LG-0LR0102J0N5	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	CDE	
		L8R1	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	CDE	
		L8R2	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	CDE	
		L901	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	ABCDE	
		L902	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	ABCDE	
		L904	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	ABCDE	
		L905	LG-636-004C	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	ABCDE	
		L906	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	ABCDE	
		L907	LG-636-004C	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	ABCDE	
		L911	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	D	
		L912	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	D	
		L914	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	D	
		L915	LG-0LA1000K018	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	D	
		CS501	LG-6600M000002	SWITCH,PUSH	MPU11810MLB0 MIC DC 5V 1MA D-3	ABCDE	
		CS501	LG-6600M000002	SWITCH,PUSH	MPU11810MLB0 MIC DC 5V 1MA D-3	ABCDE	
		F101	LG-585-011T	FUSE,SLOW BLOW	1600MA 250 V 5.2X20 CY/GL SEMK	ABCDE	
		F102	LG-GIRH200000B	IC,ROHM	ICP-N20 T104 TP IC DETACT	ABCDE	
		FL301	LG-633-032K	COIL,IFT	BIAC OSC,1CHIP 5V(KS-75M) KWAN	ABCDE	
		JK801	LG-6612R-C002C	JACK,RCA	RCA-208C-06 YUQIU WH-RD	CDE	
		JK901	LG-6620RM0002K	JACK,SCART	DSAM-0120 DOOWON 1F-21P (BK)	ABC E	
		JK901	LG-6620RM0002L	JACK,SCART	DSAM-0139 DOOWON 2F-21P(BK-BK)	D	
		LD501	LG-4931R-0017C	HOLDER ASSY	LED(DI-CKD)LOCAL	ABCDE	
		LED501	LG-6301R2U002D	LED ASSY	TOF-3462AGE-B OASIS UNIVERSAL	ABCDE	
		MS501	LG-6600JB8005B	SWITCH,MODE	NON 5V 1MA VERTICAL -G	ABCDE	
		S5T10	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		S5T12	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		S5T13	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		S5T14	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		SW5T1	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		SW5T3	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		SW5T4	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		SW5T5	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		SW5T6	LG-556-213C	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	ABCDE	
		T101	LG-642-015G	TRANSFORMER,SMPS[COIL]	SJE-015G/SHT-015G SJ/SH/CS/LSE	ABCDE	
		TU701	LG-6700PFPL06F	TUNER	TADC-M401D(GKI,LGIT) LG INOTEK	ABCDE	
		W588	LG-636-004C	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	ABCDE	
		X301	LG-6202R2443AC	RESONATOR,CRYSTAL	HC49U BUBANG 4-433709MHZ 15	ABCDE	
		X501	LG-6212AA2100C	RESONATOR,CRYSTAL	HC-49S BUBANG 10MHZ +/- 30 PPM	ABCDE	
		X502	LG-6202R-DA01A	RESONATOR,CRYSTAL	CFS-308 CITIZEN 32-768KHZ	ABCDE	
		X751	LG-529-021Q	RESONATOR,CRYSTAL	49U BUBANG 18432000HZ 30PPM 16	CDE	
		ZD151	LG-0DZ130009AB	DIODE,ZENERS	MTZ13C TP ROHM-K	ABCDE	
		ZD503	UZ6.2BSC-T	DIODE,ZENERS	UZ-6.2BSC 26MM PYUNG CHANG TP	ABCDE	
		ZD801	LG-0DZ562609BB	DIODE,ZENER	UZ-5.6BSB 26MM TP PYUNG CHANG	CDE	
		ZD802	LG-0DZ562609BB	DIODE,ZENER	UZ-5.6BSB 26MM TP PYUNG CHANG	CDE	
		ZD803	MTZ13AT-77	DIODE,ZENER	MTZ13A TP ROHM-K	CDE	
		ZD804	MTZ13AT-77	DIODE,ZENER	MTZ13A TP ROHM-K	CDE	

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION	SPECIFICATION	ABCDE	NSP